रजिस्ट्रई सं. डी--(डी एन)--128/91 REGISTERED NO. D—(DN)—128/91

भारत का राजपत्र
The Gazette of India

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं० 19] नई दिल्ली, शनिवार, मई 11, 1991 (वैशाख 21, 1913)
No. 19] NEW DELHI, SATURDAY, MAY 11, 1991 (VAISAKHA 21, 1913)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

भाग III—खण्ड 2
[PART III—SECTION 2]

पेटेन्ट कार्यालय द्वारा जारी की गई पेटेन्टों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

THE PATENT OFFICE

PATENTS AND DESIGNS

Calcutta, the 11th May, 1991

ADDRESS AND JURISDICTION OF OFFICES OF THE PATENT OFFICE

The Patent Office has its Head Office at Calcutta and Branch Offices at Bombay, Delhi and Madras having territorial jurisdiction on a zonal basis as shown below :—

Patent Office Branch,
Todi Estates, III Floor,
Lower Parel (West),
Bombay-400 013.

The States of Gujarat, Maharashtra and Madhya Pradesh and the Union Territories of Goa, Daman and Diu and Dadra and Nagar Haveli.

Telegraphic address "PATOFFICE".

Patent Office Branch,
Unit No. 401 to 405, III Floor,
Municipal Market Building,
Saraswati Marg, Karol Bagh,
New Delhi-110 005.

The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh and the Union Territories of Chandigarh and Delhi.

Telegraphic address "PATENTOFIC".

Patent Office Branch,
61, Wallajah Road,
Madras-600 002.

The States of Andhra Pradesh, Karnataka, Kerala, Tamilnadu, and the Union Territories of Pondicherry, Laccadive, Minicoy and Aminidivi Islands.

Telegraphic address "PATENTOFIS".

Patent Office (Head Office),
"NIZAM PALACE", 2nd M.S.O. Bldg.,
5th, 6th and 7th Floor,
234/4, Acharya Jagdish Bose Road,
Calcutta-700 020.

Rest of India.

Telegraphic address "PATENTS".

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 or the Patents Rules, 1972 will be received only at the appropriate Offices of the Patent Office.

Fees :—The fees may either be paid in cash or may be sent by Money Order or Postal Order, payable to the Controller at the appropriate Offices or by Bank Draft or Cheque, payable to the Controller drawn on a scheduled bank at the place where the appropriate office is situated.

पेटेंट कार्यालय

एकस्व तथा अभिकल्प

कलकत्ता, दिनांक 11 मई 1991

पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ता में स्थित है तथा बम्बई, दिल्ली एवं मद्रास में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार जोन के आधार पर निम्न रूप में प्रदर्शित हैं :—

पेटेंट कार्यालय शाखा, टोडी इस्टेट,
तीसरा तल, लोअर परेल (पश्चिम),
बम्बई-400 013

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य क्षेत्र एवं संघ शासित क्षेत्र गोआ, दमण तथा दिव एवं दादरा और नगर हवेली।

तार पता—"पेटोफिस"

पेटेंट कार्यालय शाखा,
इकाई सं० 401 से 405, तीसरा तल,
नगरपालिका बाजार भवन,
सरस्वती मार्ग, करोल बाग,
नई दिल्ली-110 005

हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, पंजाब, राजस्थान तथा उत्तर प्रदेश राज्य क्षेत्रों एवं संघ शासित क्षेत्र चंडीगढ़ तथा दिल्ली।

तार पता—"पेटेंटोफिक"

पेटेंट कार्यालय शाखा,
61, वालाजाह रोड,
मद्रास-600 002

आंध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु राज्य क्षेत्र एवं संघ शासित क्षेत्र पाण्डिचेरी, लक्षद्वीप, मिनिकॉय तथा एमिनिदिवि द्वीप।

तार पता—"पेटेंटोफिस"

पेटेंट कार्यालय (प्रधान कार्यालय),
निजाम पैलेस, द्वितीय बहुतलीय कार्यालय
भवन 5, 6 तथा 7वां तल,
234/4, आचार्य जगदीश बोस रोड,
कलकत्ता-700 020

भारत का अवशेष क्षेत्र

तार पता—"पेटेंट्स"

पेटेंट अधिनियम, 1970 या पेटेंट नियम, 1972 में अपेक्षित सभी आवेदन-पत्र, सूचनाएं, विवरण या अन्य प्रलेख पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में ही प्राप्त किए जाएंगे।

शुल्क : —शुल्कों की अदायगी या तो नकद की जाएगी अथवा उपयुक्त कार्यालय में नियंत्रक को भुगतान योग्य धनादेश अथवा डाक आदेश या जहां उपयुक्त कार्यालय स्थित है, उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा चैक द्वारा की जा सकती है।

ALTERATION OF ENTRIES IN THE REGISTER OF PATENT AGENTS UNDER RULE 103 OF THE PATENT RULES, 1972

In pursuance of an application on Form 52, the address of the principal place of business in respect of Shri K. T. Jose has been altered to :—

12/8, H.I.G. Welcome Apartments,
Thirumangalam,
Anna Nagar west,
Madras-600 101.

REGISTRATION OF PATENT AGENT UNDER SUB-SECTION (1) (c) (i) OF SECTION 126 OF THE PATENTS ACT, 1970

SHRI SHALEN BHATIA,
F-106, ASHOK VIHAR,
PHASE-I, DELHI-52

APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE 234/4, ACHARYA JAGADISH BOSE ROAD, CALCUTTA-20

The dates shown in the crescent brackets are the dates claimed Under Section 135, of the Patents Act, 1970

1st April, 1991

247/Cal/91 Ishikawajima-Harima Heavy Industries Company Limited and John Lysaght (Australia) Limited. Strip casting.
(Convention dated 4th April, 1990; No. PJ 9458; Australia.)

248/Cal/91 Samsung Electron Devices Co. Ltd. Shadow mask frame welding apparatus for cathode ray tube.

249/Cal/91 Combustion Engineering Inc. A clustered concentric tangential firing system.

250/Cal/91 The Babcock & Wilcox Company. Auxiliary port cleaner for boiler wall sensing port.

251/Cal/91 De La Rue Giori S.A. Sheet-feeder.

252/Cal/91 De La Rue Giori S.A. Impression cylinder arrangement of an intaglio machine for web-fed printing.

2nd April, 1991

253/Cal/91 Nippon Shokubai Kagaku Kogyo Co. Ltd. Method for treating the surface of an absorbent resin.

254/Cal/91 Nippon Shokubai Kagaku Kogyo Co. Ltd. Method of treating the surface of an absorbent resin.

255/Cal/91 Nippon Shokubai Kagaku Kogyo Co. Ltd. Method for production of fluid stable aggrigate.

3rd April, 1991

256/Cal/91 Pradip Kumar Barman. Centre table-cum-folding ladder.

257/Cal/91 Phillips Petroleum Compnay. Preparation of improved catalyst for dehydrogenation and/or dehydrocyclization of hydrocarbons.

258/Cal/91 The Timken Company. Bearing assembly for a shaft journal.

259/Cal/91 Samsung Electron Devices Co. Ltd. Dust cleaning nozzle for cathode ray tube.

260/Cal/91 Franz Plasser Bahnbaumaschinen Industriegesellschaft m.b.H. A tamping unit for track tamping machines for tamping three sleepers.

4th April, 1991

261/Cal/91 Phillips Petroleum Company. A stable oil-based sustension of water soluble polymer.

262/Cal/91 James Herbert Monks. Method and apparatus for controlling the flow of molten metals.
(Convention dated 4th April, 1990; No. 9007618.3 and 20th December, 1990; No. 9027661.9; Both are U.K.)

263/Cal/91 Otto Tuchenhagen Gmbh & co. Kg. Method of ensuring constant product quality and safety when tailback conditions occur in pasteurisers, and configuration for implementing the method.

5th April, 1991

264/Cal/91 Tam Ceramics, Inc. Compositions and methods for synthesizing ladle slags, treating ladle slags, and coating refractory linings.

265/Cal/91 Bruce K. Redding, Jr. Method and apparatus for inducing transformations inwaxes.

266/Cal/91 Bruce K. Redding, Jr. Encapsulation of environmentally sensitive materials.

267/Cal/91 Obuvnicky Promysl Svit. Resource of proteins containing other essential biologically active substances for nutrition purposes, especially for feeding animals and process for preparing the same.

268/Cal/91 Swapan Kumar Sen. saving of fuel (Petrol) through an unique system—Petrosol—P.

8th April, 1991

269/Cal/91 Sri gautam Saha. Prefilled hair-brush.

270/Cal/91 Degussa Aktiengesellschaft. A catalyst for the oxidation of sulfur dioxide.

271/Cal/91 Prasantha Kumar tripathy. Improved voltage stabilizer.

APPLICATION FOR PATENTS FILED AT THE PATENT OFFICE BRANCH, MUNICIPAL MARKET BUILDING, IIIRD FLOOR, KAROL BAGH, NEW DELHI-110005

11th March, 1991

186/Del/91 Joginder Singh Kang, "Kang energy producing without perennial expense system".

187/Del/91 Council of scientific & Industrial Research, "A process for preparation of rigid foams using naturally occurring agrobased, renewable raw materials".

188/Del/91 Council of scientific & Industrial Research, "A process for preparation of zirconia by plasma dissociation of zircon".

189/Del/91 Council of scientific & Industrial Research, "An improved process for preparation of stabilised zirconia".

190/Del/91 Council of scientific & Industrial Research, "A plasma reactor for in-flight processing of refractory powders, minerals and ore fines".

191/Del/91 Arjomari Europe, "Method of producing a die for embossing machine wires with a view of forming watermarks and device for carrying out said method".

192/Del/91 Veitscher Magnesitwerke-Actien-Gesellschaft, "A process for preparing fibrous magnesium oxide".

193/Del/91 Badf Lacke + Farben Aktiengesellschaft, "Aqueously developable, negative-working, electrophoretically depositable and photocurable coating agent, and also its use to produce conductor tracks".

12th March, 1991

194/Del/91 Emhart Industries, Inc. "Push out device". (Convention date 6th April, 1990) (U.K.).

195/Del/91 Proteus Molecular Design Ltd. "Synthetic polypeptides". (Convention date 15th March, 90) (U.K.).

196/Del/91 Emhart Industries, Inc. "Take out device". (Convention date 6th April, 90) (U.K.).

197/Del/91 Desinsectisation Moderne, "Probe for penetrating and being displaced in a mass of pulverulent material".

13th March, 1991

198/Del/91 Asheah Chandra Mishra, "Fertility and sterility control reactant of human being (including living being).

199/Del/91 B.E.F.S. Technologies S.A. "Device for purifying any crystallizable product".

200/Del/91 The Gillette Co, "Razor blade technology".

201/Del/91 The Gillette Co., "Razor blade technology".

202/Del/91 S.A. Wow Co., "Device intended to create a motion in a liquid, in particular at the surface thereof".

14th March, 1991

203/Del/91 The Procter & Gamble Co., "Foaming personal cleansing product with foam enhancing polymer".

204/Del/91 Albright & Wilson Ltd, "A process for producing an anticorrosive material by reaction of a trivalent metal compound". (Convention date 23rd December, 86, 17th February, 87 & 21st July, 1987) (U.K.). & [Divisional date 23rd December, 87].

205/Del/91 UTDC, Inc, "Suspension system".

206/Del/91 UTDC, Inc, "Chassis for steerable trucks".

207/Del/91 UTDC, INC.,"Wheelset for rail vehicle".

208/Del/91 Synthelabo, "Process for preparing(—)—[methyl (2R, 3S)—2, 3, —epoxy—3—(4—methoxyphenyl) propionate] for its enantiomer".

209/Del/91 Societe Nationale Elf Aquitaine, "Process for the synthesis of a silica-enriched crystalline aluminosilicate having the offretite structure, the aluminosilicate obtained and its use as a catalyst for the conversion of hydrocarbons".

15th March, 1991

210/Del/91 Chief Controller. Research & Development, "Electroless copper/nickel/gold plating of a ferrite rod".

211/Del/91 Chief Controller. Research & Development, "A process for depositing thin film of nickel on alumina and other ceramics substrates".

212/Del/91 Ground Engineering Co. Pvt. Ltd., "A joint for jointing of at least two structural members".

213/Del/91 Imperial Chemical Industries Plcm, "Low energy fuse". (Convention date 15th March, 90 & 17th December, 90) (U.K.).

214/Del/91 Literock International (Proprietary) Ltd, "Aggregate for use in making structural elements".

215/Del/91 Armstrong World Industries, 'Inc, "A method for the preparation of an improved surface converting article". [Divisional date 15th January, 1988].

APPLICATIONS FOR PATENTS FILED IN THE PATENT OFFICE BRANCH AT TODI ESTATES, 3RD FLOOR, SUN MILL COMPOUND, LOWER PAREL(W), BOMBAY-13

13th March, 1991

70/Bom/91 Hindustan Lever Limited., A process

14th March, 1991

71/Bom/91 Hindustan Lever Ltd., Bleaching compound & compositions.

72/Bom/91 Hindustan Lever Ltd., Bleaching catalysts & compositions containing same.

73/Bom/91 Hindustan Lever Ltd., Low-temperature bleaching compositions.

15th March, 1991

74/Bom/91 Trigon Metal sections Pvt. Ltd., Structural angle for erecting structures.

ALTERATION OF DATE UNDER SECTION 16

165534 (54/Cal/1988) : Ante-dated to April 18, 1984.

OPPOSITION PROCEEDINGS

(1)

An opposition as entered by M/s. Hindustan Ciba Geigy Ltd. Bombay, to the grant of a Patent on application for Patent No. 163037 made by M/s. Pidilite Industries Pvt. Ltd., Bombay as notified in the Gazette of India, Part III, Section 2, dated 25-2-1989 succeeded and it is ordered that the application for Patent is refused.

(2)

An opposition has been entered by ESBI TRANSMISSIONS PVT. LTD., Calcutta to the grant of Patent on Patent Application No. 167530 (21/BOM/1989) made by Shri DEORAM KHANDJI THORAT, Ahmednagar.

(3)

An application for Patent No 156941 (339/BOM/1982) made by M/s. Jaya Hind Industries Ltd., Pune in respect of which an opposition was entered by M/s. Bajaj Auto Ltd., Pune as notified in the gazette of India, Part III, Section 2 dated the 19th July 1986 has been treated as withdrawn.

(4)

An Opposition has been entered by Messrs Mayoor Chinubhai Gandhi, samit Chinubhai Gandhi and Kunjbala Chinubhai Gandhi, of Medipedic Surgicals, to the grant of a Patent on Application No. 167328 made by Shri A. P. Aboobacker, Kerala.

PATENTS SEALED

166642 166784 166785 166843 166844 166947 167043 167044 167045 167047 167048 167050 167051 167084 167090

CAL— 2

DEL—NIL

MAS—12

BOM— 1

AMENDMENT PROCEEDINGS UNDER SECTION 57

Notice is hereby given that TAKEDA CHEMICAL INDUSTRIES LTD, OF 27, Doshomachi, 2—chome, Higashi-ku, Osaka 541, Japan, have made an application under Section 57 of the Patents Act, 1970, for amendment of application and specification of their application for Patent No. 167709 for "PROCESS FOR PREPARING AN-UNSATURATED AMINE". The amendments are by way of correction, The application for amendments and the proposed amendments can be inspected free of charge at the Patent Office Branch, 61, Wallajah Road, Madras-600 002, or copies of the same can be had on payment of the usual copying charges. Any person interested in opposing the application for amendment may file a Notice of Opposition on prescribed Form-30 within 3 months from the date of the Notification at the patent Office, Madras-2. If the Written Statement of Opposition is not filed with the Notice of Opposition, it shall be left within one month from the date of filing the said Notice.

COMMERCIAL WORKING OF PATENTED INVENTION'S

ELECTRICAL LIST NO. I

The following patents in the field of Electrical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146 (2) of the Patents Act, 1970 in respect of Calendar year 1989 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a license for the purpose.

Patent No.	Date of Patent	Name and Address of the Patentee	Title of the Invention
1	2	3	4
155085	13-11-1981	Asahi Glass Co. Ltd., 1-2, Marunouchi 2 Chome, Chiyoda-Ku, Tokyo, Japan.	Alkali metal chloride electrolyzing cell.
157592	16-4-1982	—do—	Improved filter press type electrolytic cell.
153536	24-12-1980	Asahi Kasei Kogyo kabushiki Kaisha, 2—6, Dojimahama, 1-chome, kita-ku, Osaka-shi, Osaka, Japan.	A method for the preparation of a hydrogenevolution electrode.
154740	11-12-1980	—do—	A method for the manufacture of an alkali metal hydroxide, chlorine gas and hydrogen gas.
161390	15-11-1983	—do—	An improved hydrogen-evolution electrode and a method of producing the same.
157611	5-10-1982	British Railways Board, 222, Marylebone Road, London N.W. 1, England.	Control system for controlling the passage of vehicles.
148348	16-2-1978	Chlorine Engineers Corp. Ltd., No. 2—5, Kasumigaseki 3-chome, chiyoda-ku, Tokyo, Japan.	Bipolar electrode.
151251	2-3-1978	—do—	Bipolar electrode and method for producing the same.
147919	19-4-1978	Chugai Denki Kogyo Kabushimi Kaisha, 13/3, Nihonbashi-Kayabacho, 2-chome, chuo-ku, Tokyo, Japan.	A method of making impoved Ag-method oxides electrical contact materials.
156490	21-5-1982	—do—	Method of preparing improved electrical contacts made of silver alloy.
155263	8-8-1980	Degussa Ag. Frankfurt/Main, 6450, Hanau 1, Postfach, F.R.G.	A process for producing an electrical Contact. based on silver and tin oxide.
155846	4-12-1981	Degussa AG. 9, Weisstrauenstrasse, Frankfurt, (Main), F.R.G.	Material for electrical contacts.
160151	5-1-1984	Energy Conversion Devices, 1675, West Maple Road, Troy Michigan 48084, USA.	Electronic matrix arrays and method for making parallel preprogramming or field programming the same.
144230	5-10-1976	General Electric Company. 1, River Road, Schenectady 5, New York, USA.	A prime mover control system.
144647	27-10-1976	—do—	Apparatus for collecting pyrolysates from a gas cooled dynamoelectric machine.
145970	8-6-1976	—do—	Reactor core.
146133	3-7-1976	—do—	Gas cooled flux shield for dynamo electric machine.

1	2	3	4
153617	27-3-1981	—do—	An electrical capacitor electrode foil method of manufacturing the same and an electrical capacitor having such foil.
154216	24-6-1981	—do—	Electric power supply system more particularly to power supply for electrically propelled traction vehicles.
156661	4-2-1982	General Electric Co, 1, River Road, Schemectady, 5, New York, USA.	An electrical capacitor.
157610	20-9-1982	—do—	Improved system for optical pattern recognition for reading our line patterns or arbitrary shape orientation and location from a pattern carrying medium.
158340	2-9-1982	—do—	System for providing protection for a high voltage transmission line.
143408	27-8-1976	Hoechst AG, 6230, Frankfurt/Main 80, West Germany.	Electrolytic apparatus for production of chloride from aqueous alkali metal chloride.
152456	7-4-1980	—do—	Process for the dechlorination and cooling of the anolyte of the alkali metal chloride electrolysis by pressure release.
152756	5-3-1980	—do—	Electrolysis apparatus.
160332	22-2-1984	Hughes Aircraft Co., 200, North Sepulveda, El, Segundo, California 90245, USA.	A dual path optical sensor system.
150970	29-1-1979	ICI Ltd., Imperial Chemical House, Mill bank, London SWIP, 3JF England.	Apparatus for selectively activating a plurality of electrical loads at pre-determined relative times.
151012	19-1-1979	ICI Ltd.,	An electrical ignition assembly.
152055	7-5-1979	ICI Ltd.,	Electrically actuable igniter assembly and method of constructing such an assembly.
157163	14-7-1981	ICI Ltd.,	Electrode for use in electrolytic cell.
158436	8-9-1982	Imperial Chemical Industries PIC, Imperial Chemical House, Millbank, London SWIP, 3JF, England.	Electrically actuable ignition assembly for a detonator.
158899	8-2-1983	Imperial Chemical Industries PIC.	A method of manufacturing an electrolytic cell.
159462	7-5-1983	—do—	Electrolytic cell containing gasket having projection and/or recesses.
159902	9-11-1982	—do—	Electrolytic cell of the filter press type.
160013	6-6-1983	—do—	A porous sheet diaphragm of an organic polymeric material for an electrolytic cell and the method of preparation thereof.
160767	7-3-1984	—do—	Electrolytic cell.
154480	30-10-1981	Jeumont-Schneider, 31-32, Quai De Dian Bouton, 92811, Puteaux Cedex, France.	A control circuit for a direct current motor during traction or braking.
160826	16-9-1983	—do—	Control circuit of a synchronous motor with two induced windings.

1	2	3	4
158103	28-4-1982	John Stephen Nitschke, 324, East Second Street, Perrysburg, Ohio 43551, USA.	Control system for monitoring and controlling the processing of glass sheets in a glass processing environment.
145920	9-6-1976	Kirloskar Oil Engines, Laxmanrao Kirloskar Road, Poona-411003, State of Maharashtra, India.	An electronic device for the reversal of the direction of rotation of an electric motor.
149498	23-6-1977	Maillefer S.A. Route du Bois, 1024, Ecublens, Canton of Vaud, Switzerland.	Method and apparatus for manufacturing electric wire enamel-type insulation.
149499	23-6-1977	Maillefer S.A. Route du Bois, 1024, Ecublens, Canton of Vaud, Switzerland.	Method of manufacturing insulated electric wire of the enamelled-wire type extrusion.
153538	28-2-1981	Mitsubishi Denki Kabushiki Kaisha, No. 2-3, Marunouchi, 2-chome, Chiyoka-ku. Tokyo, Japan.	A puffer type gas circuit breaker.
155798	27-4-1982	—do—	Method of producing an electrically insulated conductive body.
156140	7-4-1982	—do—	Arc. suppressing apparatus for circuit breaker.
156143	24-1-1983	—do—	Air circuit breaker.
156392	30-3-1982	—do—	Terminal connecting device.
156473	14-4-1982	—do—	Drawer-type circuit breaker.
156898	27-7-1982	—do—	Inpur converting circuit.
157465	24-1-1983	—do—	Air circuit breaker
157572	24-1-1983	—do—	Air circuit breaker
157722	24-1-1983	—do—	Air circuit breaker.
161010	29-7-1982	—do—	A terminal apparatus for a drawer type relay.
154892	20-3-1980	Mitsubishi Rayon Co. Ltd., 3—19, Ayobashi, 2-chome, chuo-ku, Tokyo, Japan.	A dieletric polyoropylele film for oil immersion type electrical appliances and a method of producing the same.
146898	19-10-1976	Mobil Tyco Solar Energy Corporation. 16, Hickory Drive, waltham. Massachusetts, USA.	Method of porducing ribbon like crystalline bodies for use in fabricating solar cells.
146899	19-10-1976	—do—	Manufacture of semi-conductor ribbon and solar cells.
158640	16-4-1983	Outomumpu OY, Outomumpu, Finland.	An electric furnace intended for smelting or heating.
150661	19-3-1979	Permelec Electrode Limited, No. 2—5, Kasumigaseki, 3-chome, chiyoda-ku, Tokyo, Japan.	Electrolysis electrodes and method of making same.
150943	13-9-1979	—do—	Electrode substrate alloy for use in electrolysis.
153847	26-12-1980	—do—	Electrolysis apparatus using a diaphragm of a solid polymer electrolyte and method for production thereof.
156926	20-7-1982	Permelec Electrode Ltd., No. 1159, Ishikawa, Fujisawa, Kanagawa-ke, Japan.	Ion exchange membrane electrolytic apparatus and process for producing the same.

1	2	3	4
158048	8-4-1983	—do—	A process for the production of an ion exchange membrane with a coating thereon for use in electrolysis.
159552	6-6-1983	—do—	Cathode for electrolysis of acid solution and process for the production thereof.
151437	31-5-1979	Rosemount Inc., 12001, West 78th Street, Eden Pealrie, State of Minnesota, USA.	Two wire current transmitter with improved voltage regulator.
154802	1-10-1981	—do—	Capacitive preasure tranaducer with isolated sensing diaphragm.
156305	22-1-1982	—do—	Circuit for measuring the reactance of an AC reactance.
153736	17-1-1981	Sulzers Brothers Limited, CH-8401, Winterthur, Switzerland.	A method of producing magnesium from a magnesite of dolomite.

COMMERCIAL WORKING OF PATENTED INVENTIONS

CHEMICAL LIST NO. I

The following Patents in the field of chemical Engineering Industry are not being commercially worked in India as admitted by Patentees in the statements filed by them under Section 146(2) of the Patents Act, 1970 in respect of Calendar year 1989 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a license for the purpose.

1	2	3	4
158548	27-8-1984	American Home Products Co. 685, Third Avenue, New York N.Y. 10017, U.S.A.	Process for the preparation of pencillinamidase dialdehyde adduct.
159585	27-8-1984	—do—	Process for the preparation of 6-aminopenicillanic acid.
158128	31-3-1983	Asahi Glass Co. Ltd., 1-2 Marunouchi, 2-Chome, Chiyoda-ku, Tokyo, Japan.	An improved process for recovering ammonia from ammonium chloride.
152793	5-6-1980	Asahi Kasei Kogyo Kabushiki Kaisha, 2—6, Kojimahama 1-chome, Kita-kur, Osaka-shi, Japan.	Fluorinated cation exchange membrane and process for preparing the same.
153146	12-12-1980	—do—	Separation of rare earth metals.
153451	1-12-1980	—do—	Process for producing fluorinated cation exchange membrane.
154418	1-12-1980	—do—	Process for preparing novel fluorinated cation exchange membrane.
154593	11-11-1980	—do—	An improved process for producing a viscose rayon filament yarn thereby produced.
156691	23-12-1981	—do—	A process for the separation of elements by chromatography.
160816	30-6-1983	—do—	Process for the production of polyhexamethylene adipamide fibers.
149600	21-1-1980	Ashok Ranjan Das Gupta, C/o. Eastern Carbons, 'Sneh-Milan' Telephone Exchange Road, Dhanabad-826001, Bihar.	Process for producing special quality low ash metallurgical coke.
153750	20-10-1981	—do—	Improvement in a process for the production of special quality low ash metallurgical coke.

1	2	3	4
153648	13-1-1981	Battelle Development Corporation, 505 King Avenue, Columbus, Ohio 43201 U.S.A.	A method of producing a reaction gas having a low content of nitrogen oxides and sulfur dioxide from the combustion of hydrocarbons in a multisolid fluidized bed having a lower dense fluidized bed.
157117	1-10-1981	Beloit Corporation, Beloit, Wisconsin 53511, U.S.A.	Method of producing a fiber pulp having improved opacity at a high yield from bagasse.
153014	6-11-1980	Bethlehem Steel Corporation bethlehem, Pennsylvania 18016, U.S.A.	A method of producing a metallic coated ferrous base product.
153015	6-11-1980	—do—	A method of producing a thermally treated metallic coated ferrous base product.
154256	15-12-1980	—do—	A process for making a ductile composite metal product.
158222	13-8-1984	Biogen N.V., 15, Peter Maal, Willemstad, Curaco, Netherlands, Antilles.	Process for producing pharmaceutically acceptable compositions effective against hepatitis B. viral infections.
150163	28-9-1978	Chemie Linz AG., St. Peter—Strasse 25, A-4021, Linz.	Process for the preparation of anhydrous aluminium fluoride.
155028	10-10-1980	Chemie Linz AG, St-Peter-Strasse 25, 4020 Linz, Austria.	A raw meal composition for use in production of cement and sulphuric acid and a process for preparing said composition.
160950	27-3-1984	—do—	Process for the preparation of an isocyanic acid/ammonia gas mixture having a low cyanuric acid content, and an apparatus for carrying out the process.
148118	22-3-1978	Ciba-Geigy AG, Klybeckstrasse 141, 4002 Basle, Switzerland.	Process for bleaching textiles.
149540	16-3-1979	CPC International Inc., International Plaza, Englewood Cliffs, New Jersey 07632, U.S.A.	A process for producing an immobilized glucose isomerase.
155261	8-8-1980	Degussa AG., Frankfurt/Main 6450 Hanou 1, Postfach, F.R.G.	Silane/Filler preparations, a process for their production.
155262	8-8-1980	—do—	Vulcanisable rubber mixture based on halogenfree rubbers, a process for vulcanisation of these rubber mixtures.
155641	26-11-1981	Degussa AG, 9 Weisstrauenstrasse, Frankfurt (Main), F.R.G.	A process for preparing improved animal feed by supplementing industrially produced mixed feed stock with methionine.
160110	25-8-1983	—do—	Process and apparatus for producing carbon black.
160848	30-7-1983	—do—	An improved method for heat treating steel in an inert salt bath.
161201	31-8-1983	—do—	Improved method of preparing direct soldered electrical contact material.
161552	26-10-1983	—do—	A continuous co-current process for carrying out catalytic hydrogenation with hydrogen or a hydrogen containing gas for the production of hydrogen peroxide by the so-called anthraquinone process.
161676	31-12-1983	—do—	A process for the production of regenerants for carburizing salt baths.
150598	25-2-1980	E.I. Du Pont De Nemours & Co., Wilmington, Delaware, U.S.A.	Process for producing rutile TiO_2.
158705	23-9-1983	—do—	A crosslinkable foamable composition.

1	2	3	4
159328	22-7-1983	E.I. Du Pont De Nemours & Co., Wilmington, Delaware, U.S.A.	Process for preparing a polyester antistatic agent.
160224	20-6-1984	—do—	A continuous process for fluorinating halokanes containing at least one nonfluorine halogen atom.
159389	21-4-1984	Euroceltique S.A. 122 Boulevard de la petrusse, Luxembourg.	Method of producing pharmaceutical iodophor preparations having predictable microbicidal effectiveness and long duration of action.
147255	5-10-1977	F.M.C. Corporation, 2000 Market Street, Philadelphia, Pennsylvania 19103, USA.	A process for obtaining hydrogen sulfide free steam from geothermal steam or industrial gas streams containing hydrogen sulfide and water vapour.
157741	25-1-1982	—do—	A process for the purification of spent steam in a geothermal power plant.
159474	28-1-1983	—do—	Process for preparation of 2, 3-dihydro-2-2 dimethyl-7-hydroxybenzofuran.
160747	10-10-1984	—do—	Process for producing alkali metal cyanates.
150013	14-6-1978	General Electric Company, 1 Rover Rd., Schenectady 5, New York, U.S.A.	Process for making a sintered polycrystalline cubic boron nitride compact.
150315	13-10-1978	—do—	Process for preparing an integral composite of a polycrystalline diamond body and silicon carbide or silconnitride substrate.
150647	19-9-1978	—do—	A process for preparing poly crystalline diamond body.
152258	11-9-1979	—do—	A process for producing a polycrystalline body of a predetermined shape.
152702	27-12-1979	—do—	A process for producing an integral composite of polycrystalline diamond and/or cubic boron nitride body phase and substrate phase.
152876	2-5-1980	—do—	Production of cubic boron nitride from powdered hexagonal boron nitride.
153075	9-4-1980	—do—	Process for preparing a polycrystalline diamond body.
153720	22-7-1980	—do—	An improved process for preparing a compact.
157518	30-8-1982	—do—	Polycrystalline diamond compact and an improved process for making the same.
157594	27-5-1982	—do—	Improved process for making diamond and cubic boron nitride compacts.
157760	27-1-1982	—do—	Process for improving the plating characteristics of Boron rich cubic Boron nitride.
159232	27-5-1982	—do—	Improved metal bonded diamond agglomerated abrasive.
159536	23-3-1983	—do—	Improved process for making a sintered high strength polycrystalline abrasive compact.

1	2	3	4
144449	7-5-1976	Hoechst AG., 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of stable monoazo dyestuffs.
144514	28-5-1976	—do—	Process for the preparation of stable modification of a disazo dyestuff.
144534	27-4-1976	—do—	Process for preparing 1 (n-β cyanethylamine) 3-acylamino-benzenes.
144645	23-7-1976	—do—	Process for the preparation of water-soluble copper complex compounds.
144979	1-7-1976	—do—	Liquid composition soft reactive dyes.
146212	3-6-1977	—do—	A process for preparing stabilized red phosphorous.
146167	18-11-1977	—do—	Process for the preparation of water soluble dyestuffs.
146325	7-12-1977	—do—	A water free solid water soluble dyeing compositions.
147048	3-12-1977	—do—	Process for making stabilized red phosphorus.
148129	27-7-1977	—do—	Improved process for the manufacture of β- sulphate ethyl-sulphonyl amino phenol compounds.
148322	27-7-1977	—do—	Imporved process for production of an organic dyestuffs containing 1, 2, 3, or 4 β -sulphate ethyl sulphonyl groups.
148409	7-4-1978	—do—	Process for the preparation of abrasion resistant non-dusting and water-soluble dyestuff particles in a fluidized bed.
148986	17-5-1978	—do—	Process for the continuous manufacture of 3-nitro 4-acetyl amino-tolume and corresponding apparatus.
149614	9-8-1978	—do—	Process for the preparation of novel disperse azo dyestuffs.
149992	15-9-1978	—do—	Process for preparing a finely divided dioxazine pigment.
150012	12-6-1978	—do—	A process for the preparation of azo pigment.
150125	8-12-1978	—do—	Process for the manufacture of a copper-cobalt or chromium complex compound of a monoazo compound.
150149	13-7-1978	—do—	Process for the preparation of polyvinyl butyral having improved properties.
150312	14-8-1978	—do—	Process for the manufacture of fatty acid nitriles and glycerol from glycerides, especially from natural fats and oils.
150238	4-2-1980	—do—	Process for the preparation of 5-Nitrobenzimidazolone-(2).
150368	26-10-1978	—do—	Process for the preparation of water soluble dyestuffs.

1	2	3	4
150592	21-12-1978	Hoechst AG., 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of 5—(2'—hydroxy—3'—Naphthoylamino)—Benzimidazolone-(2).
150948	14-2-1979	—do—	A process for the manufacture of a new water soluble dyestuffs.
150949	28-5-1979	—do—	Process for the preparation of water-soluble phthalocyanine dyestuffs.
150967	17-3-1979	—do—	Process for the preparation of red phosphorus stabilized against oxidation.
151048	22-3-1979	—do—	Improvements in a process for the continuous dyeing of flat textiles structures made of cellulosic fibers and of their mixtures with synthetic fibers.
151785	12-6-1979	—do—	An improved process for continuous diazotization of amine.
152341	10-1-1980	—do—	A composition of a disperse dyestuff.
152346	17-3-1980	—do—	Process for the separation of 2-hydroxy-naphthalene-3-carboxylic acid from the reaction mixtures of alkali metal salts of 2-hydroxynaphthalene and carbon dioxide.
152496	3-11-1980	—do—	A process for the manufacture of copper complex formazan compounds.
152725	12-10-1979	—do—	Continuous production of azo pigments.
152786	14-12-1979	—do—	A process for the preparation of monoazo pigment which will have recrystallization resistant properties.
152897	24-10-1980	—do—	A pulverulent or liquid dyestuff composition.
152978	29-6-1981	—do—	Process for the preparation of water-soluble azo compounds.
152991	14-2-1979	—do—	A process for the manufacture of new water-soluble dyestuffs.
153342	23-12-1980	—do—	Process for the manufacture of desulfurizing agents based on calcium oxide containing calcium carbide for crude iron or steel melts.
153408	3-11-1980	—do—	Process for the preparation of copper formazan compounds.
153476	1-12-1980	—do—	Process for the preparation of water-soluble azo dyestuff compounds.
153490	21-12-1978	—do—	Process for the preparation of 5—(2'—hydroxy—3'—naphthoylamino)—Benzimidazolone—(2).
153496	3-11-1980	—do—	Process for the manufacture of stabilized, pulverulent red phosphorus.
153853	16-5-1981	—do—	Process for dyeing and printing fiber materials containing or consisting of natural cellulose fibers, regenerated cellulose fibers, natural polyamide fibres and/or synthetic polyamide fibres.

1	2	3	4
154434	1-7-1981	Hoechst AG., 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of water-soluble phthalocyamine compounds containing a sulfonyl cyanamide group.
154589	28-4-1980	—do—	Process for the production of liquid chlorine.
154643	19-8-1980	—do—	Process for preparing water-soluble phthalocyanine compounds.
154872	4-3-1981	—do—	Process for the preparation of 1 (β —sulfatoethyl-sulfonyl-phenyl) pyrazolone by esterification.
154873	4-3-1981	—do—	Process for the preparation of sulfatoethyl-sulfonyl compounds.
154874	4-3-1981	—do—	Process for the preparation of aminobenzanilidesulfuric acid half-ester compounds.
154951	3-6-1981	—do—	Composition containing colorants and esterified oxalkylates of aromatic hydroxy compounds.
154958	19-8-1980	—do—	A process for providing a fibre material with a finished (improved) property.
155265	23-12-1980	—do—	A process for manufacturing a desulfurizing agent.
155374	31-8-1981	—do—	Process for preparing water soluble disazo compounds.
155772	26-4-1982	—do—	Process for preparing anthraquinone compounds.
156063	8-12-1982	—do—	Process for making 1, 2—dichloroethane.
156075	27-7-1981	—do—	Process for the preparation water soluble fiber reactive compounds containing A-B chloriethy-sulfonylmethyl benzoyl amide radical.
156278	18-10-1982	—do—	Process for preparing water soluble monoazopyridone compounds.
156400	1-12-1980	—do—	Process for the preparation of water soluble azo dyestuffs compound.
156403	16-5-1981	—do—	Process for the preparation of water soluble metal free or heavy metal complex compound.
156477	30-10-1981	—do—	Process for the preparation of water-soluble disazo compounds.
156610	5-2-1982	—do—	Process for the preparation of anionic surfaceactive compounds based on oxyalkylated naphthol novelacs.
156867	14-10-1981	—do—	Process for preparing dust free pigment granules of high tinctorial strength.
156869	30-10-1981	—do—	A process for the preparation of water-soluble monoazo compounds.
156933	20-11-1982	—do—	Process for making 1, 2—dichloroethane.

1	2	3	4
156989	31-3-1982	Hoechst AG., 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of disazo compounds.
156990	31-5-1982	—do—	A process for preparing water soluble monoazo compounds.
157075	19-7-1982	—do—	Process and device for making alkali metal phosphates by spraying alkali metal phosphate solutions or suspensions.
157123	14-6-1982	—do—	A process for the preparation of a polymerization catalyst.
157124	14-6-1982	—do—	A process for the preparation of a polymerization catalyst.
157126	1-7-8279	—do—	Process for preparing copper complex monoazo compounds.
157238	1-7-1981	—do—	A process for the preparation of water-soluble phthalocyanine compounds containing a sulfonyl cyanamide group.
157311	1-9-1982	—do—	Process for preparing water soluble disazo compounds.
157455	5-5-1983	—do—	Process for preparing water-soluble azo compound.
157470	16-5-1981	—do—	Process for the manufacture of water-soluble phthalocyanine dyestuffs.
157495	14-5-1982	—do—	Process for preparing water-soluble disazo compounds.
157496	13-8-1982	—do—	Process for preparing water-soluble disazo compounds.
157497	21-1-1983	—do—	Process for preparing water-soluble disazo compounds.
157663	21-2-1983	—do—	A process for the continuous dyeing of fabric webs.
157668	16-5-1981	—do—	Process for the manufacture of water-soluble phthalocyanine dyestuffs.
157685	19-8-1980	—do—	Process for preparing water-soluble phthalocyanine compounds.
157814	30-4-1982	—do—	Process for the manufacture of monoazo compounds.
157990	16-5-1981	—do—	Process for the manufacture of water-soluble phthalocyanine dyestuffs.
158147	16-5-1981	—do—	Process for the manufacture of a metal kee or heavy—metal complex dyestuff containing a sulfo group.
158237	15-10-1982	—do—	Process for preparing water-soluble azo compounds.

1	2	3	4
158270	2-5-1983	Hoechst AG., 6230 Frankfurt/Main 80, Federal Republic of Germany.	A process for preparing water-soluble disazo compounds.
158274	1-7-1982	—do—	Process for the preparation of copper complex monoazo compounds.
158322	14-2-1983	—do—	Process for the preparation of water-soluble disazo dyestuffs.
158501	5-11-1982	—do—	Process for preparing water-soluble disazo compound, processes for their preparation.
158546	27-7-1981	—do—	Process for the preparation of water-soluble fibre reactive dyestuff containing a β—chloro-ethyl-sulponylmethyl benzoyl amino radical.
158547	27-7-1981	—do—	Process for the preparation of water soluble heavy-metal complex dyestuffs.
158644	2-5-1983	—do—	Process for preparing water soluble diazo dyestuff.
159104	10-11-1983	—do—	Process for making 1, 2-dichloroethane.
159176	5-2-1982	—do—	Process for the preparation of anionic surface-active compounds based on oxyalkylated naphthol Novolacs.
159503	17-3-1982	—do—	A solid dyestuff composition of water-soluble fibre reactive dyestuffs and condensation products.
159629	10-11-1982	—do—	Process for preparing a water-soluble symmetrical or asymmetrical 1:2 chromium complex of 1:2 cobalt complex or 1:2 chromium and, 1:2 mixed complex azo compound.
159917	7-5-1984	—do—	Single vessel process for preparing ring-substituted N-alkylanilines.
160049	1-7-1982	—do—	Process for the preparation of copper complex monoazo compounds.
160055	15-10-1982	—do—	A process for the preparation of water-soluble pyridone-azo compounds.
160849	8-8-1983	—do—	A process for preparing a mixture of 1:2 cobalt complex and 1:2 chromium azo dyestuff.
161050	30-4-1982	—do—	Process for the manufacture of monoazo compounds.
161179	5-2-1982	—do—	Process for the preparation of anionic surface-active compounds based on oxyalkylated naphthol Novolacs.
161817	16-7-1984	—do—	Process for the preparation of bicyclic copper complex formazan compounds.
161970	28-3-1985	—do—	A process for separating sodium sulfate from aqueous dyestuff solutions.
145110	28-6-1976	I.C.I. Australia Ltd., 1, Nicholson St., Melbourne, Victoria 3001, Australia and Diamond Shamrock Corporation, 110 Superior Avenue, Cleveland, Ohio 44114 U.S.A.	Process of making an amphoteric polymeric composition.

1	2	3	4
152389	20-6-1979	I.C.I. Australia Ltd., 1, Nicholson St., Melbourne, Victoria 3001, Australia and Diamond Shamrock Corporation, 110 Superior Avenue, Cleveland, Ohio 44114 U.S.A.	An improved process for the manufacture of ammonium nitrate priks or granules.
153504	19-12-1979	I.C.I. Ltd., Imperial Chemical House, Millbank, London SWIP, 4QG, England.	A process for the oxidation of a substituted aromatic compound.
154758	30-9-1980	—do—	Process and apparatus for the mixing of fluids and solids.
155133	13-10-1980	—do—	A process for producing hydrocarbons.
156152	30-3-1981	I.C.I. Ltd., Imperial Chemical House, Millbank, London SWIP 3JF, England.	A process for the production of a multilayer protective and/or decorative coating upon a substrate surface and a substrate so coated.
156777	11-6-1981	—do—	A process for producing a gas containing hydrogen.
154435	21-12-1982	Imperial Chemical Industries Plc. (ICI PLC) Imperial Chemical House, Millbank, London SWIP 3JF, England.	A method for preparing an aqueous concentrated emetic herbicidal composition.
156031	1-5-1981	—do—	A process for the production of olefins.
156032	5-5-1981	—do—	A process for the production of methanol.
156903	26-8-1981	—do—	A process for producing one or more carbon compounds from a carbonaceous feedstock.
157911	9-3-1982	—do—	Process for reacting carbon monoxide with steam.
158868	1-10-1981	—do—	A process for the production of ammonia.
158970	19-5-1982	—do—	A process for the preparation of quinoline derivatives.
159188	5-4-1983	—do—	Process for the production of ammonia.
159347	6-6-1983	—do—	A process for the manufacture of coloured intagliated article.
159469	10-5-1983	—do—	A process for the preparation of a sterically stabilised aqueous polymer dispersion.
160045	11-8-1983	—do—	A process for polymerisation of ethylenically unsaturated monomers.
160075	31-10-1983	—do—	A process for coating a conductive substrate.
160577	30-3-1981	—do—	A basecoat composition.
159123	14-5-1984	Instytut Ciezkiej Syntezy Organicznej Blachownia, Kedzierzyn-Kozle, Poland.	Method of separating hydrogen chloride from a post-reaction mixture derived from the high temperature chlorination of propylene to allyl chloride.
161697	4-7-1984	—do—	Method for the manufacture of allyl chloride.

1	2	3	4
154108	21-3-1981	I.S.C. Smelting Ltd., 6 St. James's Square, London SW1Y 4 LD, England.	Method of manufacturing sinc, with improved step of charging sinc smelting blast furnaces.
156789	4-3-1983	—do—	Roasting of mixed sulphide ores or concentrates.
157936	2-7-1983	Korea Advanced Institute of Science & Technology, 207-43, Cheong-Rang-Ri-Dong, Dongdai Mon-Ku, Seoul, S. Korea.	Process for the production of (+) 4—oxo—1,2,3,6, 7 11b—Hexahydro—4H—pyrazino (2, 1—a) iso-quinoline derivatives.
159586	2-7-1983	—do—	Process for the production of (I) 4—oxo—1, 2, 3, 6, 7, 11b—Hexahydro—4H—pyrazino (2, 1—a) iso-quinoline derivatives.
151149	20-2-1979	L' Air Liquide Societe, Anonyme Pour L' Etude Et L' Exploitation Des Procedes Georges Claude 75, Quai Orsay-75007, Paris, France.	Apparatus and method of hydrogen enrichment of a purge gas in ammonia production plan.
5786	6-4-1981	—do—	Improvements in or relating to processes of and apparatus for the production of ammonia synthesis gas.
158484	18-5-1982	—do—	Process and apparatus for the production of fuel gas by the under ground gasification of coal.
158843	18-11-1982	Lipha Lyonnaise Ind Pharmaceutique 34, rue Saint Romain-69008, Lyon, France.	A process for preparation of (oxo—4—4H(i)-benzopyran-8-yl) alkanoic acid derivatives.
158942	18-11-1982	—do—	A process for the preparation of haloalkyl 8-4H-(1) benzopyran-4-ones.
163166	30-3-1985	—do—	A process for preparing derivatives of hydroxy-4-2H-1, Benzothiopyran-2-one,
152252	30-5-1979	Magnesium Elekron Ltd., Lumn's Lane, Clifton, Junction, Swinton, Manchester, England.	A method of making magnesium alloys.
157529	25-3-1982	—do—	A method of making a magnesium alloy.
150339	21-11-1978	Mettalurgical Development, Bahamas Bldg., West Bay Street, Nassau, Bahamas.	Method of smelting zinc in a blast furnace.
152128	16-5-1979	—do—	Pyrometallurgical smelting of an oxidic change containing lead and copper.
152255	14-8-1979	Midrex International B. V., Wilfriedstrasse 12, 8032 Zurich, Switzerland.	Method for the direct reduction of iron using gas from coal.
155080	14-8-1981	—do—	Method and apparatus for the direct reduction of iron in a shaft furnace using gas from coal.
160813	1-6-1983	—do—	Method of generating a reducing gas.
151406	7-3-1980	Mitsubishi Gas Chemicals Co. Inc., 5-2, Marunouchi, 2-chome, Chiyoda-ku, Tokyo, Japan.	Sodium hydrosulfite bleaching composition.
151891	13-8-1979	Mitsui Toatsu Chemicals Inc., 2-5, 3-chome, Kasumigaseki, Chiyoda-ku, Tokyo, Japan.	Process for producing alkenyl phenol and or its polymer.
152042	13-8-1979	—do—	Process for preparing isopropenyl phenol.
154210	21-5-1981	—do—	Improvement in a process for the preparation of a catalyst system for polymerization of olefins.

1	2	3	4
156483	17-2-1983	Mitsui Toatsu Chemicals Inc., 2-5, 3-chome, Kasumigasaki, Chiyoda-ku, Tokyo, Japan.	Process for preparing of 3, 3'-diamino diphenyl-sulfones.
156854	5-3-1982	—do—	An improved process for producing propyleneethylene block copolymer or propylene polymers.
144577	20-7-1976	Monsanto Co. 800 North Lindbergh Boulevard. St. Louis, Missouri 63167, U.S.A.	Process of making thermoplastics elastomeric compositions.
150497	8-11-1978	—do—	A process for preparaing thermoplastic compositions.
150612	23-10-1978	—do—	The process for making nitro-diarylamines.
150736	1-11-1978	—do—	A process for the preparation of nitrodiarylamine.
150804	4-1-1979	—do—	Process for making an amide of formic acid.
151020	1-11-1978	—do—	A process for the preparation of nitrodiaryl-amines.
151581	6-3-1979	—do—	Process for separating gas from gaseous feed mixture.
153458	6-3-1979	—do—	Process for synthesizing ammonia from hydrogen and nitrogen.
155268	4-1-1979	—do—	Process for preparing nitrodiarylamine.
155993	8-6-1982	—do—	Improvements in a process for the production of cyclohexylamine.
156432	12-3-1982	—do—	Process for catalytically hydrocracking a hydrocarbonaceous feed.
156863	18-10-1982	—do—	A process for inhibiting premature vulcanization of a vulcanizable rubber composition.
157128	21-7-1982	—do—	A process for encapsulating water immiscible material within a shell wall of polyurea.
157351	11-3-1982	—do—	A process for catalytically hydrocracking a hydrocarbonaceous feed.
159074	19-8-1983	—do—	An improved vulcanizable rubber composition.
159092	22-8-1983	—do—	Process for the preparation of thermoplastic elastomers.
159531	17-1-1983	—do—	Process for producing paraphenylenediamine mixtures.
156875	14-1-1982	Neste Oy, Kellanienmi, 02150, Espoo 15, Finland.	Method of producing alkali soluble cellulose carbamate.
158268	19-3-1983	—do—	A process for producing cellulose fibers optionally containing carbamate groups.
159236	1-1-1983	—do—	A process for producing cellulose carbamate.
159530	1-1-1983	—do—	Process for precipitating cellulose carbamate from an aqueous alkali solution.

1	2	3	4
159663	29-11-1983	Neste Oy, Keilanienmi, 02150, Espoo 15, Finland.	Improved process for dissolving cellulose carbamate.
161836	23-10-1984	—do—	Process for manufacturing cellulose carbamate fibres or films.
161858	11-3-1985	—do—	Process for manufacturing cellulose carbamate.
152086	12-5-1981	Nippon Zeon Co. Ltd., of 6-1, 2-chome, Marunouchi, Chiyoda-ku, Tokyo, Japan.	Improved process for separating conjugated diolefin hydrocarbons from a hydrocarbon mixture.
153409	5-12-1980	—do—	Method for inhibiting polymerization of conjugated dienes in a process for separating conjugated dienes from a hydrocarbon mixture.
155678	9-12-1980	—do—	Process for extracting distillation.
157555	7-10-1982	—do—	A process for producing a reactor for preparing vinyl chloride polymer.
152485	8-5-1979	Nissan Chemical Industries Ltd., 7-1-3, Kanda Nishiki-cho, Chiyoda-ku, Tokyo, Japan.	Improved process for polymerizing ethylene.
157330	21-8-1982	—do—	Process for producing polyethylene.
158042	4-6-1982	—do—	A process of preparation of a catalyst for the polymerization or copolymerization of ethylene.
158588	29-3-1985	—do—	An improved process of polymerization or copolymerization of ethylene.
145617	22-8-1977	Outokumpu Oy Toolonkatu 4, SF-00100 Helsinki, Finland.	Hydrometallurgical process for the recovery of zinc, copper and cadmium from their ferrites.
147866	26-9-1977	—do—	A hydrometallurgical process for the recovery of valuable metal content from the soluble silicate bearing materials.
150879	22-11-1978	—do—	A process for the separation of phosphate and carbonate minerals from each other by froth-flotating.
154127	22-11-1978	—do—	An improved process for recovering separately phosphate and carbonate minerals from phosphate carbonate silicate ores or concentrates.
155869	25-9-1981	—do—	A process for the recovery of lead, silver and gold from the iron-bearing residue of an electrolytic zinc process.
157144	1-7-1983	—do—	Procedure for roasting seleniferous material.
156603	28-7-1982	R.J. Reynolds Tobacco Co., Main & Fourth Streets, Winston Salem, State of North Carolina, 27101, U.S.A.	Improved smoking tobacco product and process for improving the flavour or aroma of such product.
143874	18-1-1977	Shell Internationale Research Maatschappij B.V. Carrel Van Bylandtlaan, 30 The Hague, The Netherlands.	Process and apparatus for the preparation of dewatered carbonaceous particles.
143710	14-6-1976	—do—	A process for the dehydrogenation of hydrocarbon with the aid of an iron containing catalyst.

1	2	3	4
152405	20-12-1979	Shell Internationale Research Maatschappij B.V. Carrel Van Bylandtlaan, 30 The Hague, The Netherlands.	Improvements in or relating to a process for regenerating solvents used in acid gas removal.
154530	1-4-1981	—do—	A process for the synthesis of middle distillates of petroleum.
155483	14-10-1981	—do—	A process for preparation of oxygen-containing organic compounds and paraffinic hydrocarbons.
155501	3-11-1981	—do—	Removal of hydrogen sulphide and carbonyl sulfide from gaseous mixtures.
155631	24-5-1982	—do—	Process for the removal of H_2S from a sour gaseous stream.
156059	23-3-1977	—do—	Process for preparing modified silver catalysts for the manufacture of ethylene oxide.
156108	3-5-1982	—do—	Process for the removal of H_2S and CO_2 from gaseous streams optionally comprising hydrocarbons.
156182	2-1-1982	—do—	A process and apparatus for the preparation of cooled and purified gas from a hot gas.
156408	14-6-1982	—do—	Process for the removal of CO_2 and if present H_2S from a gas mixture.
156826	11-5-1982	—do—	Process for the removal of CO_2, H_2S and COS from gaseous streams.
156851	22-12-1981	—do—	Improvements in a column and a method for removing vinyl chloride from an aqueous slurry of polyvinylchloride particles.
156920	24-5-1982	—do—	Sulphur recovery process.
157514	14-6-1982	—do—	Process for the removal of H_2S and CO_2 from a gas mixture.
158141	9-2-1983	—do—	A process for the separation of a liquid mixture by extraction.
158380	5-11-1983	—do—	Process for the preparation of a fishcertropsch catalyst and use of this catalyst in the preparation of hydrocarbons.
158700	19-7-1983	—do—	Process for the preparation of hydrocarbons.
146044	1-4-1977	Shin-Etsu Chemical Co. Ltd, 6-1, Otemachi 2-chome, Chiyoda-ku, Tokyo, Japan.	Method for removing unreacted monomer from the aqueous dispersion of polymerizate of vinyl chloride.
147427	21-1-1978	—do—	Improved method for the polymerization of vinyl monomers.
149987	22-7-1978	—do—	An improved method for the polymerization of vinyl chloride monomer.
151895	14-10-1980	—do—	Method for the preparation of vinyl chloride resins by suspension polymerisation.

1	2	3	4
153574	24-7-1980	Shin-Etsu Chemical Co. Ltd, 6-1, Otemachi 2-chome, Chiyoda-ku, Tokyo, Japan.	Improvement in the polymerization process of vinyl chloride.
156957	13-9-1982	—do—	A vertical type polymerization reactor.
157650	23-3-1982	—do—	Improvement in or relating to polymerization of an ethylenically unsaturated polymerizable monomer.
157818	15-10-1982	—do—	Improvements in or relating to a polymerization reactor used for carrying out polymerization of a vinylic monomer.
147145	5-12-1977	Showa Denko Kabushiki Kaisha, 13-9, Shiba Daimon 1-chome, Minato-ku, Tokyo, Japan.	Process for preparing a ferrochromium by using a blast furnace.
152524	4-6-1980	Stamicarbon B.V., P.O. Box. 10, Galeen, The Netherlands.	Process for the preparation of filaments of high modulus and tensile strength.
152912	9-5-1980	—do—	Process for treating urea containing waste water for recovering NH_3 and CO_2 therefrom and utilising said process in the process for preparing melamine.
154019	26-4-1980	—do—	Thermosetting powder based on a unsaturated polyester resin and process for preparing the same.
154475	22-7-1981	—do—	Process for the preparation of copolymers of ethylene with atleast one other 1-alkene.
154476	22-7-1981	—do—	Process for the preparation of copolymers of ethylene with at least one other 1-alkene.
154655	26-3-1981	—do—	Production of polyamide based objects and objects so produced.
154656	26-3-1981	—do—	Preparation of polytetramethylene adipamide.
154657	26-3-1981	—do—	Preparation of high molecular polytetramethylene adipamide.
154820	7-5-1981	—do—	Process for the preparation of a supported chromium oxide type catalyst for the polymerization of olefins.
156790	23-4-1983	—do—	Process for preparing cyclohexanol and cyclohexanone.
158001	28-6-1982	—do—	Process and device for the preparation of polymer melts which are substantially free of volatile components.
158211	3-3-1983	—do—	An improved process for preparing melamine.
158343	16-10-1982	—do—	Process for the production of polymer filaments having high tensile strength and modulus.
144985	23-11-1976	Texaco Development Corporation, 135 East, 42nd Street, New York, 10017, U.S.A.	Fluidized cracking catalyst regeneration process and apparatus.
144027	14-4-1977	The Lubrizol Corporation, Box 17100 Euclid Station, Cleveland, Ohio 44117, U.S.A.	A process for preparing a magnesium containing complex.

1	2	3	4
144604	30-8-1976	The Lubrizol Corporation, Box 17100 Euclid Station, Cleveland, Ohio 44117, U.S.A.	Process for the preparation of hydrocarbon substituted methylol phenol compositions.
144940	8-2-1977	—do—	A lubricating composition.
145083	7-10-1976	—do—	A lubricant composition for two cycle engines.
145084	7-10-1976	—do—	Process for preparing amino phenol compounds.
145085	27-10-1976	—do—	A process for making a nitrogen-containing organic composition.
146833	1-7-1977	—do—	A process for preparing a nitrogen containing additives.
148713	27-7-1977	—do—	Method of making atleast one nitrogen containing organic compound from a substituted nitrophenol and a hydrazine compound.
149315	1-9-1978	—do—	Process for preparing a sulfurized composition.
149553	6-2-1978	—do—	Lubricant compositions.
149615	4-9-1978	—do—	Process for preparing sulfurized composition.
150090	8-3-1979	—do—	Process for preparing an additive compositions.
152377	5-5-1980	—do—	A method for preparing phosphorus acid metal salt composition.
152732	16-4-1980	—do—	An improved phosphorus-containing lubricating compositions.
152910	11-4-1980	—do—	Process for preparing mixed metal salts useful as additive for lubricants or functional fluids.
152939	18-9-1979	—do—	Process for the preparation of a nitrozen containing phosphorus-free carboxylic acid derivative.
153881	25-10-1979	—do—	Process for the preparation of carboxylic solubilizer/sufractant composition.
154056	14-11-1980	—do—	A process for preparing a lubricant additive comprising metal/metal compound metalloid complexes.
155231	5-9-1981	—do—	Improved crude oil composition.
155264	22-9-1980	—do—	Lubricant additive compositions or concentrate comprising sulfurized alkyl phenol and high molecular weight dispersant.
155285	5-9-1981	—do—	Mixed alkylesters of interpolymers for use in crude oils.
156659	24-5-1983	—do—	A composition for use in oil based lubricants containing carboxylic acid derivatives of alkanol tertiary monoamines.
157101	11-4-1980	—do—	Phosphorus and sulfur containing lubricating composition and functional fluid compositions of improved thermal stability.
157683	16-4-1980	—do—	A process for preparing phosphorous containing lubricant additive.

1	2	3	4
157985	25-9-1979	The Lubrizol Corporation, 29400 Lakeland Boulevard Wickliffe Ohio 44092, U.S.A.	An aqueous system comprising water and carboxylic solubilizer/surfactant composition.
158265	5-4-1984	—do—	A process for preparing novel boron-containing compositions.
158598	8-9-1982	—do—	A process for preparing a composition for lubricating metal during working thereof.
161061	24-6-1983	—do—	Process for making a nitrogen containing ester of a carboxy containing interpolymer.
161461	8-8-1983	—do—	A liquid composition having hydrocarbyl substituted carboxylic acylating agent derivative containing combinations.
161606	16-2-1984	—do—	An additive composition having alkyl phenol and amino phenol for use in lubricating compositions.
153218	8-4-1981	Unie Van Kunstmestfabrieken B.V. P.O. Box 4., 3500 AA Utrecht, The Netherlands.	Process for making urea prills.
145670	6-1-1977	Union Carbide Corporation, 270 Park Avenue, New York, State of New York, 10017, U.S.A.	Method of preparing Nickel-Rhenium hydrogenation catalyst.
146147	29-3-1977	—do—	Process for producing particulate resoles from aqueous dispersion.
146241	7-4-1977	—do—	Continuous hydroformylation process.
146305	16-5-1977	—do—	A foam composition for treating a fabric or paper substrate.
146324	16-5-1977	—do—	Process of treating fabrics with foam.
146661	6-7-1977	—do—	Improvements in or relating to hydroformylating an alpha-olefin.
146734	11-8-1977	—do—	A process for producing aldehyde product by rhodium catalysed hydroformylation of alpha-olefin.
146408	24-1-1978	—do—	Improved hydroformylation process.
146956	17-6-1977	—do—	Process for refining molten metal.
147429	24-1-1978	—do—	Improved hydroformylation process.
150614	13-12-1978	—do—	Process for producing particulate fillter-containing resole molding compositions from aqueous dispersion.
150766	29-12-1979	—do—	Process for the removal of acid gas such as CO_2 from a hydrocarbon feed gas.
151070	30-3-1979	—do—	Preparation of ethylene copolymers in fluid bed reactor.
152087	30-3-1979	—do—	A process for preparing a catalyst composition for homopolymerizing ethylene and the catalyst composition prepared by the same.

1	2	3	4
152088	30-3-1979	Union Carbide Corporation, 270 Park Avenue, New York, State of New York, 10017, U.S.A.	Impregnated polymerization catalyst process for preparing the same and its use for ethylene copolymerization.
152141	30-3-1979	—do—	Preparation of high density ethylene polymers in fluid bed reactor.
152145	27-12-1979	—do—	A process for producing a magnesium and titanium containing catalyst composition.
152153	30-3-1979	—do—	Process for the preparation of high density ethylene polymers in fluid bed reactor.
152450	17-11-1979	—do—	A catalytic process for producing ethylene copolymer.
152790	27-3-1980	—do—	A process for preparing a hydroformylation medium and hydroformylation.
153581	6-2-1981	—do—	Compositions of alkylene-alkyl scrylate copolymers having improved flame refardant properties.
153828	17-6-1980	—do—	A process for making heterogeneous ethylene based polymers having a high tear strength.
154420	29-6-1981	—do—	An improved silica supported catalyst composition and process for preparing the same.
154537	24-10-1980	—do—	Improvement in hydroformylation process using stable rhodium catalyst.
155121	27-12-1979	—do—	A catalytic fluid bed process for producing ethylene polymers.
155337	18-3-1980	—do—	A process for preparing a catalyst containing 2 to 20 weight percent silver deposited on a support for the commercial scale production of ethylene oxide.
155681	29-9-1981	—do—	Process of producing a water curable silane-modified alkylene alkyl acrylate copolymer.
155691	30-3-1979	—do—	A catalytic process for producing ethylene homopolymer.
156046	29-6-1981	—do—	An improved process for producing ethylene copolymer with a Ti containing catalyst.
156399	18-3-1980	—do—	A continuous process for the production of ethylene oxide.
156444	10-12-1981	—do—	A process for extruding a film forming polyolefin resin based composition into film.
157177	24-6-1981	—do—	A corrosion inhibiting composition for inhibiting the corrosive action of aqueous alkanol-amine solutions and a method of its preparation.
157385	28-9-1982	—do—	Process for preparing a supported silver catalyst for the production of ethylene oxide.
157471	24-6-1981	—do—	A corrosion inhibiting composition for inhibiting corrosive action of aqueous alkanolamine solutions and a method of its preparation.

1	2	3	4
157837	4-10-1982	Union Carbide Corporation, 270 Park Avenue, New York, State of New York, 10017, U.S.A.	A process for preparing a supported silver catalyst.
158241	23-3-1983	—do—	An improved process for continuous production of polymer in a fluidized bed reactor.
158341	10-9-1982	—do—	Process for producing an improved particulate resole resin.
159207	27-12-1982	—do—	Process for producing particulate novolac resin and aqueous dispersions.
159791	17-6-1983	—do—	A method for refining crude butyraldehyde.
162111	27-6-1984	—do—	Process for eliminating surface melt fracture.

COMMERCIAL WORKING OF PATENTED INVENTIONS

MECHANICAL & GENERAL LIST NO. I

The following patents in the field of Mechanical & General Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146(2) of the Patents Act, 1970 in respect of calendar year, 1989 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a license for the purpose.

1	2	3	4
146518	23-9-1976	American Standard Inc., 40 West, 40 Street New York 10018 USA.	Brake control valve device with movable control reservoir charging valve.
147938	24-9-1977	—do—	An absorbing apparatus in a draft-gear for railroad cars.
150945	13-10-1978	—do—	Housing for draft gear.
159849	10-8-1984	Amitava Ghosh Dastidar. 5 Hungerford Court 12/1. Hungerford street, Calcutta-17, West Bengal, India.	Reinforced concrete piles.
157839	17-12-1982	Arthur Ernest Bishop. 17 Burton street, Mosman, New South Wales, Australia.	Rack and pinion steering gear.
158109	4-6-1983	—do—	Method and apparatus for making steering rack bars.
154038	31-1-1981	Battelle Development Corporation. 505 King Avenue, Columbus, Ohio 43201, USA.	A method for generating & super heating steam and apparatus therefor.
151073	24-4-1979	Bechtel International Corporation. 50 Beale Street, San Francis Co, California, USA.	Apparatus for slack flow elimination in a slurry pipeline.
151551	17-4-1979	—do—	Improvements in or relating to apparatus in a slurry pipeline station for pumping slurry.
150748	2-5-1979	Beloit Corporation. Beloit, Wisconsin USA 53511.	Apparatus for reeling a plurality of ribbons particularly from a slit paper web onto a reel spool.
150953	11-8-1980	—do—	An improved extended nip press for removing water from a travelling web in a paper machine.
151642	3-9-1979	—do—	Apparatus and method for handling a continuously running creped tissue web.

1	2	3	4
151848	3-9-1979	Beloit Corporation,P. O. Box 350, Beloit, Wisconsin USA 53511.	A press mechanism for removing liquid from a travelling fibrous web.
152292	29-1-1981	—do—	A press mechanism for removing liquid from a travelling fibrous web.
152559	5-4-1980	—do—	A paper web making apparatus.
153018	9-3-1981	—do—	A paper web processing apparatus and method of processing the paper web.
154817	3-1-1981	—do—	An apparatus for forming a fibrous web and method of forming the said fibrous web.
156216	1-6-1982	—do—	Improvements in a suction press roll for dewatering a travelling web in a paper making machine.
156488	10-3-1982	—do—	An apparatus for applying coating to both surfaces of a moving web and method of coating by the said apparatus.
156523	5-10-1982	—do—	A blade-type coating applicator for coating travelling paper webs.
157429	3-9-1982	—do—	A blade type fountain coating applicator especially suitable for paper web coating and method thereof.
157983	8-6-1983	—do—	A system or arrangement for driving the rolls in cooperative upper and lower tiers of a paper machine dryer section.
158007	15-9-1983	—do—	Mechanism for drying a travelling web in a dryer drum used in paper making machine.
158402	2-8-1983	—do—	A dryer section for drying a travelling, fibrous web such as in a paper making machine.
159200	2-8-1982	—do—	A method and an apparatus for applying coating to paper sheet web.
159583	11-10-1984	—do—	Disc screen shaft and method of and means for manufacturing the same.
159610	18-1-1982	—do—	An apparatus for high speed size application.
159744	2-9-1983	—do—	Improvement in paper making machine and particularly to method and mechanism for positive web press section of the machine.
160723	18-4-1984	Beloit Walmsley Ltd. Atlas Works Bury, Lancashire England.	Method and apparatus for deinking fibrous waste paper stock or slurry.
160869	10-8-1984	Beloit Corporation, P.O. Box 350, Beloit, Wisconsin 53511, U.S.A.	Batch digester multi-stage pulping process.
161246	3-9-1984	—do—	A winder for continuously winding a travelling web onto a roll.
161515	2-12-1983	—do—	Paper board dryer felt run for removal of liquid or moisture from a travelling web.
161698	10-7-1984	—do—	Disk screen apparatus and method of making the same.

1	2	3	4
161969	5-3-1985	Beloit Corporation, P.O. Box 350, Beloit, Wisconsin 53511, U.S.A.	Press structure in paper making machines.
162165	5-11-1984	—do—	An improved paper machine headbox.
162166	3-12-1984	—do—	Extended nip press.
162485	8-10-1984	—do—	Supercalendars used in paper making machines.
162681	13-9-1983	—do—	Apparatus for effective control of cross-machine moisture profile of a paper web in a paper making machine and method therefor.
162748	28-6-1985	—do—	Machine for winding a web of paper on rolll core.
163080	3-1-1985	—do—	An apparatus for headbox jet velocity measurement.
148670	1-9-1978	—do—	Improvements relating to forming machines for paper webs.
156150	17-12-1982	Bernard Zimmern. 27, Rue Dalabordee 72200 neuilly Sur Seine, France.	A volumetric machine with screw and pinion wheels.
151957	26-5-1979	British Railway Board. 222 Marylebone Road, London NW1 England.	Railway Vehicles.
152955	18-8-1980	—do—	A railway vehicle or bogie.
153321	5-9-1981	British Railways Board. 222 Marylebone Road, London N.W. 1 England.	Measuring vehicles for roadways.
155423	7-7-1981	Brown & Williamson Tobacco Corporation. 1600 West Hill Street, Louisville, Kentucky 40232, U.S.A.	Apparatus for making grooves in tobacco smoke filters.
155856	3-2-1983	—do—	Cigarette filter.
156401	23-2-1982	—do—	Cigarette filter.
157633	2-2-1983	—do—	Improvements relating to tabacco smoke filters
156799	22-7-1981	C.I.L. Inc. Dorchester Blvd. West, Montreal Quebec, Canada.	Method of assembling a column of explosives and the column of explosives assembled thereby.
157533	3-11-1982	Compagnie Financiere Des Cardans. 16 Avenue de La Republique 92503 Rueil-Malmaison, France.	Articulation device having a double universal joint and a ball joint unit.
160893	7-5-1984	Contraves AG. Schaffauserstrasse 580, 8052, Zurich, Switzerland.	An optical system for a peris-cope-like sighting device for locating, tracking and ranging a target.
160894	7-5-1984	—do—	Periscope-like sighting device.
161856	28-2-1985	Degussa AG. Weisafrauenstrasse 9, 6000 Franfurt (Main), F.R.G.	High-pressure sintering furnance.
146438	24-12-1976	DRG (UK) Limited. 1, Redcliffe Street, Bistal, England.	A method of assembling a printing roll comprising sleeve and a role core and a detachable sleeve printing roll so obtained.
146439	22-6-1977	—do—	A mehtod of producing a printing roll and the roll so produced.

1	2	3	4
148753	19-8-1977	Dunlop Limited, Dunlop House, Ryder Street, St. James's London SW1, England.	Improvements in or relating to springs.
149325	28-5-1977	—do—	Improvements to tyre and wheel rim assemblies.
150295	30-11-1979	Eastern Carbons, Sneh Milan, Telephone Exchange Road, Dhanbad-826001, Bihar, India.	Improved beehive coke oven.
150303	30-11-1979	—do—	A battery of improved beehive coke ovens.
150489	21-1-1980	—do—	Self generated continuous carbonsing furnace.
158494	7-4-1982	—do—	Equipment for continuous devolatilisation of coal.
152279	28-1-1980	E.I. Du Pont De Nemours & Co., Wilmington, Delaware, United States of America.	Process for preparing security paper from film-fibril sheets and security paper made by the said process.
153947	6-11-1980	—do—	A compartmented grout cartridge for use in anchoring a reinforcing member in a hole.
150860	20-3-1979	Eugene Walter Sivachenko, 6471 Riverside drive, Redding, California, USA.	a long span bridge.
151232	16-12-1978	—do—	A bridge for suspension between spaced apart bridge supports.
144646	18-9-1976	Festo-Maschinenfabrik gottlieb Stroll. Ulmer Strasse 48, Esslingen a.N., F.R.G.	Connecting apparatus for use in fluid supply lines.
149138	30-12-1977	Festo-maschinenfabrik Ulmer Strasse 48, Esslingen, West Germany.	fluid tranafer apparatus.
151441	19-9-1979	—do—	Connecting piece for supply line carrying gaseous or fluid media.
153195	17-9-1979	—do—	Rotary slide valve.
158296	23-4-1982	Festo-maschinenfabrik Gottlieb Stoll. Ulmer Strasse 48, 7300 Esslingen, F.R.G.	A spool valve.
157460	26-7-1982	Firma Carl Still GmbH & Co. Kg. 4350 Recklinghausen, Pastfach 101851, F.R.G.	Coke oven door.
159556	2-7-1983	—do—	Improvements in and relating to a coke oven door.
156250	18-10-1982	Fisher Controls International Inc., 7711 Bonhome, Clayton, Missouri 63105, U.S.A.	Pneumatic Controller for controlling a process variable.
157430	14-10-1982	—do—	Dynamic fluid pressure sensor for a vortex-shedding flowmeter.
156508	17-1-1982	Flogates Ltd., Sandiron House, Beauchief, Sheffied S7, 2RA, England.	Metal folding apparatus and method.
159000	30-3-1983	—do—	Sliding gate valves and components thereof.
148419	20-1-1978	General Electric Company, 1, River Road, Schenectady 5, New York, U.S.A.	Temperature resistent machine tool component and method for making same.
153134	22-10-1980	—do—	Improved method of making diamond compacts for rock drilling.

1	2	3	4
155060	20-7-1981	General Electric Company, 1, River Road, Schenectady 5, New York, U.S.A.	In a power plant a system for controlling the operation of a steam turbine.
155806	27-9-1979	General Motors Corporation. 3044, West Grand Boulevard, Detroit, Michigan, U.S.A.	A rigid self supporting gas permeable low temperature bonded sand particle mold.
155807	27-9-1979	—do—	A method and apparatus of casting metal in a rigid, self-supporting gas permeable low temperature bonded sand grain mold.
150716	24-1-1979	Harold Ashley Mcmaster etc. 420 Water Street, Woodville, Ohio, USA.	Apparatus for bending and tempering glass sheet.
155502	3-4-1982	Hoechst Ag. 6230, Frankfurt/Main 80, West Germany.	Metering device.
150622	25-10-1979	Hollingsworth (UK) Ltd., Seaiteliffe Street, Accrington, Lancashire BB5 Orn, England.	Improvements relating to open-end spinning apparatus.
150623	25-10-1979	—do—	Improvements relating to open-end spinning apparatus.
158456	10-5-1983	—do—	Friction spinning apparatus for forming a yarn.
159688	7-11-1983	—do—	Friction spinning apparatus.
154001	3-4-1980	Hughes Aircraft Co., Centinela and Teale Street, Culver City, State of California, USA.	Hydrazine thruster.
156067	10-9-1979	I.C.I. Plc. Imperial Chemical House, Millbank London SWIP, 3JF, England.	Containers for liquid to be electrostatically sprayed.
157676	16-12-1981	—do—	A device for initiating explosions.
158557	3-11-1982	—do—	Reactor for use in a catalytic reaction.
158995	13-12-1982	—do—	Process for the selective separation of atleast one phase of a fluid fossil fuel composed of a plurality of phases of different densities.
159549	28-1-1983	—do—	Apparatus for the characterisation of a surface coating film.
151641	8-8-1979	J. J. Bollmann Fluhgasse 49, CH-8008 Zurich Switzerland.	System for anchoring structural members.
161404	6-2-1985	—do—	Base support for pole.
159091	20-8-1983	John Stephen Nitschke, 650 W. Front Street, Perrysburg, Ohio 43551, USA.	Apparatus and method for locally heating conveyed glass sheets.
160111	31-8-1983	—do—	A positioning controller of or conveyor in a glass sheet processing equipment.
143971	18-10-1976	Kirloskar Oil Engine Ltd., Laxmanrao Kirloskar Road, Khadki, Pune-411003.	Improvements in crankcase of an internal combustion engine.

1	2	3	4
145494	11-10-1976	Kirloskar Oil Engines Ltd., 13 Laxmanrao Kirloskar Road, Pune-411003, Maharashtra, India.	A pre-combustion chamber for an internal combustion engine.
150454	21-2-1980	—do—	An improved inlet manifold for use in a compression ignition internal combustion engine operating on Bi-fuel.
151987	25-9-1981	KRW Energy System Inc., Three Greenway Plaza, Houston Texas, USA.	Fluidized bed gasification reactor and method of producing therein a combustion gas from a particulate carbonaceous material.
152370	17-1-1981	—do—	A fluidized bed combustion apparatus.
153351	25-8-1981	—do—	Apparatus for filtering particles from a mixture of particles in a high temperature gas.
156313	26-11-1982	—do—	A fluidized bed apparatus.
151069	4-6-1984	Laboratories Boiron. 20 Rue de la Liberation, Sainte Foy Les, Lyon (Rhone), France.	Apparatus for the manufacture of globules, granules, small balls or the like from a material, such as sugar.
159619	7-6-1983	L' Air Liquide Societe. Anonyme Pour L' Etude Et. L' Exploitation Des Procedes Georges Claude. 75, Quaid Orsay, 75007 Paris, France.	Improved thermally insulated container.
160331	17-2-1984	—do—	Apparatus in particular a reactor for purifying fluid by adsorption.
160739	25-6-1984	—do—	Process and device for vapourizing a liquid by heat exchange with a second fluid and their application in an air distillation installation.
161131	31-1-1984	—do—	Apparatus for cooling a fluid from about ambient temperature to a low temperature.
152349	22-5-1980	Lothar Teske. Hegelstr 15, 5000 Kotr 90, West Germany.	Arm-type feeder wheel for unloading solids from a storage bin.
154840	26-4-1982	—do—	Device for discharging a round loose material silo.
156252	27-8-1982	—do—	Ash removal device for coal firing systems of steam generators.
157356	26-4-1982	Lothar Teske. Hegalstr 15, 500 Koln, 90, Federal Republic of Germany.	Discharging device for a loose material bunker.
148463	11-8-1978	Lydall Inc. of Maniatreet, Rogus, Connecticut 06263, United States of America.	A process of forming high density insulating board.
161919	17-2-1986	Metallurgical & Engineering Consultants (India) Ltd., Doranda, Ranchi-834002, Bihar, India.	Coke oven foul gas offtake system.
148170	27-7-1978	Metallurgical Development Company. Trust Corporation of Bahamas Building, West Bay Street, Nassau, Bahamas.	Improvements in or relating to tuyeres for blast furnaces and furnaces having such tuyeres installed therein.
148333	14-4-1977	—do—	Blast furnace charging apparatus.
146320	30-5-1977	Mobil Tyco Solar Energy Corporation. 16 Hickory Drive, Waltham, Massachusetts, USA.	Method & Apparatus for reducing residual streases in crystals while the crystals are being pulled from a melt.

1	2	3	4
147431	30-4-1977	Mobil Tyco Solar Energy Corporation. 16 Hickory Drive, Waltham, Massachusetts, USA.	Apparatus for crystal growth.
147798	14-11-1977	Monsanto Co., 800 North Lindbergh, Boulevard, St. Louis, Missouri 63177, USA.	Multi-component membranes comprising a porous separation membrane for gas separations and processes for gas separations using the multicomponent membranes.
155415	14-7-1981	Nederlandse Centrale Organisatie Voor Toegepast—Natuurwe—tenschappelijk Onderzoek. Juliana Van Stolberglaan 148, The Hague, Netherlands.	An apparatus for [illegible]lling the air fuel ratio in a fuel supply syste[illegible] combustion engines.
161855	12-8-1983	Nederlandse Centrale Orgamisatie Voor Toegepast—Natuurweten Schappelijk Onder—Zoek. Juliana Van Stolberglaan 148, 2595 CL, The Hague, The Netherlands.	Apparatus for the use of gas as secondary diesel engines.
145616	4-8-1977	Nitto Boseki Co Ltd., No. 1, Aza Higa[illegible]hi, Go[illegible]o. Fukushima shi, Japan.	Method and apparatus for manufacturing glass fibres using deflectable air curtain.
145993	4-8-1977	—do—	Method & Apparatus for draw forming glass fibres.
154126	19-12-1981	—do—	Glass fibre forming unit.
150[illegible]	25-8-1978	Outokumpu OY. Outokumpu, Finland.	A process for producing pellets of pre-determined size from a finely divided material and an apparatus for carrying out the process.
149028	7-10-1977	Palitex Project Co., GmbH. Weeserweg 8, 4150 Krefeld 1, West Germany.	Two-for-one double twisting machine.
149[illegible]	10-10-1977	—do—	Two-for-one twisting machine.
151203	18-1-1979	—do—	Apparatus for use with a two-for-one twisting spindle for the taking up of and tension free release of a single pre-determined length of thread or the like.
151736	10-7-1979	—do—	Two for one twisting spindle.
152011	11-4-1980	—do—	A thread brake.
1[illegible]	23-7-1979	—do—	A thread take-up assembly.
152267	27-7-1979	—do—	Device for the de-activation and re-activation of textile apparatus more especially a two-for-one spinning spindle.
153910	2-8-1980	—do—	Thread storage for a two-for-one twisting spindle or spinning spindle.
154484	10-12-1981	—do—	Carrier device for at least two twister or bobbin tubes.
1[illegible]	16-4-1981	—do—	Thread brake.
155371	13-5-1982	—do—	Two-for-one twisting spindle.
155877	31-5-1982	—do—	Apparatus for use in the withdrawal of yarn from a yarn package.

1	2	3	4
156470	30-7-1982	Palitex Project Co., GmbH. Weeserweg 8, 4150 Krefeld 1, West Germany.	A thread guide for drawing threads overhead from two yarn bobbins disposed coaxially one above the other.
156693	20-1-1982	—do—	Pneumatically threadable yarn brake and a two-for-one twisting spindle equipped therewith.
148053	25-1-1977	Pandrol Limited. 9 Holborn, London EC 1N 2NE, England.	A railway rail and fastening assembly.
148584	28-1-1977	—do—	A device for removing rail clips from a railway rail and fastening assembly.
157067	9-3-1981	Paul Legueu. 85, Avenue De Mazy 44380, Pornichet, France.	Light armoured reconnaissance and vehicle.
157320	9-11-1982	—do—	A cross-country automobile vehicle of the kind suitable for towing and for hoisting loads.
155280	28-11-1981	PLM AB. Djaknegatan 16, P.O. Box-836 S-201 86, Malmo, Sweden.	A method and device for producing a tubular object.
155404	28-11-1981	—do—	Bottle-like or jar-like container of thermoplastic material and a method and device for moulding it.
157956	26-11-1982	—do—	Method of manufacturing a container of thermoplastic material.
154639	29-2-1980	Robert Henry Abplanalp. 10 Hewett Avenue, Bronxyville, Westchester Conty, New York, U.S.A.	Method and apparatus for the mass production of a gasket bearing aerosol mounting up.
155677	29-2-1980	—do—	Gasketed mounting cups for acrosol dispensing containers.
161300	5-4-1983	—do—	Dispensing cap for use with pressurized containers.
157957	26-11-1982	Rosemount Inc. 12001 West 78th Street, Eden Prairie, Minnesota 55344, U.S.A.	An apparatus for conveying fluid pressures for use with a differential preasure transducer.
155939	17-6-1981	Royal Ordnance Plc. Griffin House, 5th Strand, London WQ2N, 5BB, England.	Track link for a tracked vehicles.
156151	27-12-1979	—do—	Improvements in or relating to breech mechanisms.
157162	3-7-1981	—do—	A fire arm.
145975	21-9-1976	Schubert & Salzer Maschinenfabrik Aktiengesellschaft. Friedrich-Ebert-Strasse 84, 8070 Ingolstadt, West Germany.	Method & apparatus for automatically rendering fleeces, slivers, rovings and the like uniform drafting.
147767	12-7-1977	—do—	Apparatus for winding a thread delivered at a constant speed.
147896	19-8-1977	—do—	Apparatus for separating contaminants from fibrous material in particular from cotton fibrous material.
147897	25-10-1977	—do—	Method and apparatus for cleaning fibrous material.

1	2	3	4
150293	17-6-1978	Schubert & Salzer Maschinenfabrik Aktiengesellschaft. Friedrich-Ebert-Strasse 84, 8070 Ingolstadt, West Germany.	Method and apparatus for producing thread in open-end spinning apparatus.
151024	16-11-1978	—do—	Apparatus for making a joint in a bound yarn.
151443	17-10-1979	—do—	Combing machine.
151901	23-3-1979	—do—	Apparatus for separately stringing-up individual open-end spinning units.
152097	28-4-1979	—do—	Apparatus for controlling the bobbin drive of a speed frame.
152163	16-1-1980	—do—	Apparatus for producing a bound yarn.
152558	5-4-1980	—do—	Housing for receiving a thread monitoring unit, which comprises a thread tension sensor.
152763	4-8-1980	—do—	Open-end spinning apparatus.
152803	14-10-1980	—do—	A device for extracting impurities from fibre material, in particular cotton.
152871	21-12-1979	—do—	Control apparatus for a fibre feed device in an open-end spinning equipment.
152879	23-7-1980	—do—	Method and apparatus for producing a bound thread incorporating therein at least one thread join.
154202	20-2-1981	—do—	Device for lifting a tubular member from a spindle of a textile machine.
154211	26-5-1981	—do—	Apparatus for effecting a thread join in a bound yarn.
154429	26-5-1981	—do—	Device for sealing off a rotor guide bore of a rotor housing.
155398	12-10-1981	—do—	Pivotable spindle mounting particularly for an apparatus for spinning bound yarn.
155959	28-1-1982	—do—	Apparatus for feeding tubes to and removing packages from spinning machines and twisting machines.
156238	16-6-1982	—do—	Method and device for winding a newly joined thread onto a tube newly inserted into a winding device.
156433	16-6-1982	—do—	Pivotable suction tube for receiving thread from a bobbing.
156611	10-6-1982	—do—	A device for performing a method of placing tubes on pins of a conveyor belt for making textile yarn.
157025	5-4-1983	—do—	Pneumatic gripping device.
157735	28-5-1982	—do—	Overhung mounted, rotatable centering spindle.
159150	23-2-1983	—do—	Method of producing a thread on an open-end spinning machine and an open-end spinning machine for carrying out the method.

1	2	3	4
159261	23-2-1983	Schubert & Salzer Maschinenfabrik Aktiengesellschaft. Friedrich-Ebert-Strasse 84, 8070 Ingolstadt, West Germany.	Suction duct for textile machines.
159262	28-2-1983	—do—	Separation device for an open-end spinning apparatus with a housing.
159269	5-4-1983	—do—	Open-end spinning rotor.
160080	3-2-1983	—do—	Method and apparatus for producing an improved quality of spun yarn by joining a thread in an open-end spinning apparatus.
160694	20-8-1983	—do—	Open end spinning rotor obtained by non-cutting shaping work and a method of producing it.
1553	26-3-1981	Sealed Power Corporation. 100, Terrace Plaza, Muskegon, Michigan 49443, U.S.A.	Piston ring.
152816	22-11-1979	Shell Internationale. Research Maatschappij B.V. Carel Van Bylandtlaan 30, The Hague, The Netherlands.	Apparatus for injecting particulate polymer into a pipeline hydrocarbons.
155455	16-9-1981	—do—	Apparatus for separating liquid gas mixture.
155911	7-4-1977	—do—	Riser with hood.
157357	26-11-1982	—do—	A vertical column for separating liquid from admixture with gas.
148257	14-10-1977	Showa Denko K.K. 13-9 Shiba Daimon ' Chome, Minato-ku, Tokyo, Japan.	Method for manufacture of water-blast high carbon ferrochromium shot.
159039	9-6-1983	Single Buoy moorings Inc., 5, Route de fribourg, P.O. Box 124, CH-1723 Marly, Switzerland.	Mooring system for maintaining a buoyancy body in position in relation to an other body.
160693	9-6-1983	—do—	Device for maintaining a buoyant body in position in relation to another body.
150709	14-5-1979	Societe Dite: A.C.M.A.T. Ateliers De Constructions mechaniques De L'Atlantique. of Le Point du Jour 44600 Saint Nazaire, France.	Air-transportable highly autonomous cross-country medical vehicle.
151075	14-5-1979	—do—	Transfer box for a motor vehicle.
151682	13-9-1979	—do—	Automobile vehicle having a chases integral with a cab.
152021	14-5-1979	—do—	Highly autonomous cross-country workshop and serving van.
152729	8-2-1980	Stamicarbon B.V. P.O. Box 10, Gellen, The Netherlands.	Process for making polymer filaments of high tensile strength and modulus.
154059	30-3-1981	—do—	Device for the spraying of a liquid by means of a gas.
152194	22-1-1981	Subrata Kumar Ghosh. 32, G.B. Mondal Road, P.O. Ichapur, Nawabgung, 24-Parganas, West Bengal.	An amphibian vehicle.
151672	28-5-1979	Sulzer Brothers Ltd., CH-8401 Winterthur, Switzerland.	Means for coupling a hand drive to a rotatable shaft.

1	2	3	4
154542	2-2-1981	Sumitomo Electric Industries Ltd., No. 15, Kitahama, 5-Chome, Higashi-ku, Osaka-shi, Osaka, Japan.	Rubber & Plastic covered cable cross-linking device.
157386	14-10-1982	—do—	Process for producing heat resistant aluminium alloys wires for conducting electrolysis.
144919	22-9-1976	Texaco Development Corporation. 133 East, 42nd Street, New York, New York-10017, U.S.A.	A process & an apparatus for continuously separating by gravity of particulate carbon-liquid organic extractant dispersion.
156852	1-2-1982	—do—	A heat exchanger for cooling synthetic gas.
147587	11-5-1977	TESA S.A. Rue Bugnon 38, 1020 Renens, Switzerland.	Adjustable Fork gauge.
149302	23-6-1977	—do—	Micrometer head for internal measurement instrument.
158148	21-12-1983	Ube Industries Limited. 12-32 Nishimotocho 1-chome Ube-shi, Yamaguchi, Japan.	Improved precalciner for cement raw meal.
159982	10-4-1984	—do—	Cyclone.
160930	16-3-1984	—do—	Furnace operated by combustion of pulverized coal.
160970	16-3-1984	—do—	A pulverized coal feeder.
147475	16-5-1977	Union Carbide Corporation. 270, Park Avenue, New York, 10017, State of New York, U.S.A.	A foam applicator head for application of foam to a substrate.
149328	12-8-1977	—do—	Apparatus for refining molten metal.
154822	16-6-1981	—do—	Apparatus for detecting solidification in a mixed phase container.
155733	21-1-1977	Union Carbide Corporation. 270, Park Avenue, New York, 10017, State of New York, U.S.A.	Liquid-liquid contacting trays adapted to be combined into a Liquid-liquid contacting column.
157630	16-12-1981	—do—	Method and apparatus for applying foam to open weak substrates.
147610	14-6-1977	United Technologies Corporation. 1, Financial Plaza, Hartford, Connecticut 06101, U.S.A.	A gas turbine.
151737	3-8-1979	United Technologies. 1 Financial Plaza, Hartford, Connecticut 06101, England.	A control system for a wind turbine having a wind driven rotor.
151958	22-10-1979	United Technologies Corporation. of 1 Financial Plaza, Hartford CT 06101, U.S.A.	A withdrawal method of directional solidification of a casting of metal or alloy for producing a directionally solidified article and a directionally solidified article thus produced.
153214	2-3-1981	—do—	Wind turbine blade pitch control system.
153477	6-4-1981	—do—	Wind turbine including drive train.

1	2	3	4
154454	7-12-1979	United Technologies Corporation. of 1 Financial Plaza, Hartford CT 06101, U.S.A.	Method for fabricating wind turbine blades.
154485	22-12-1981	—do—	Blade pitch angle control device for a wind turbine generator.
154615	14-10-1981	—do—	Improvements in or relating to a method of manufacturing a filament round article.
154875	11-5-1981	—do—	Wind turbine having a hub or rotor with a plurality of air-foil blades mounted thereon.
156497	20-7-1982	—do—	A method and apparatus for manufacturing articles such as for example article of air-foil cross-sectional shape by filament winding.
156973	19-10-1982	—do—	A method of forming a tapered filament wound article.
157173	3-9-1982	—do—	Method of manufacturing a metal workpiece and finishing metal surfaces by surface treatment of workpieces.
158212	16-3-1983	—do—	A wind turbine system for generating electric power.
158707	5-11-1983	—do—	The blade pitch angle control system for a wind turbine-generator.
158792	2-6-1983	—do—	Blade feathering system for wind turbines.
159485	23-3-1984	—do—	A method of manufacturing a gas turbine engine having an annular combustion liner.
159954	5-11-1983	—do—	A system for minimizing the effect of yaw oscillations in a wind turbine.
153640	29-12-1979	Voest-Alpine AG. A-1011 Vienna, Friedrichstrasse 4, Austria.	Hollow cutting head of cutting machine.
155284	11-1-1983	—do—	Device for drying of solid materials.
155873	29-4-1982	—do—	Device for drying coal.
157394	2-12-1981	Voest Alpine AG, Werksgelamb 410, Austria.	Discharge assembly for removing green pellets out of a pelletizing device.
157531	12-10-1982	—do—	Movable cutting machines.
161839	28-11-1984	—do—	Movable supporting frame for supporting the roof in underground cavities.
162122	30-3-1984	—do—	Apparatus for spraying the bits and/or the facing with pressurized liquid as well as apparatus for reforming this process.
150301	18-6-1979	Dr. Werner Freyberg Chemische Fabrik Delitia Nachf. Bergstrasse 6941 Laudenbach, F.R.G.	Applicator means for pest control agents.
156296	18-6-1979	—do—	Applicator apparatus for pest control agents.
160326	25-5-1984	Zaklady Azotowe Im. 33-101, Tarnow, Poland.	Improvements in or relating to reactor for selective oxidation of organic compounds.

RENEWAL FEES PAID

146500 146946 147145 147294 147295 147590 147621 148296 148347 148428 148476 149330 149821 150191 150283 150401 150416 150420 150466 150475 150483 150484 150566 150675 151034 151381 151409 151436 151453 151467 151904 152501 152559 152647 152947 153227 153382 153467 153477 153504 153508 153515 153532 153543 153546 153547 153702 153766 154113 154159 154672 154702 154722 154749 155024 155150 155182 155207 155208 155209 155210 155211 155689 156151 156855 157059 157060 157065 157371 157394 157438 157508 157520 157521 157653 157671 157672 157742 158209 158463 158494 158540 158640 158747 158773 158795 158809 158813 158933 158945 158995 158997 159154 159180 159279 159431 159432 159844 159927 160150 160188 160203 160335 160360 160450 160465 160472 160520 160535 160536 160541 160552 160585 160734 161240 161508 162570 161660 161691 161789 161864 162088 162241 162243 162244 162246 162297 162455 162458 162522 162735 162879 162955 163053 163163 163171 163384 163623 163843 164039 164110 164269 164609 164697 164975 164997 164998 165291 165297 165328 165348 165350 165434 165435 165451 165452 165512 165671 165672 165673 165675 165677 165729 165889 165911 165918 165919 165920 165975 165976 165977 166002 166097 166144 166148 166149 166312

CESSATION OF PATENTS

146444 149719 151489 158451 159179 159321 159710 161656 163392 164262

COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of patents on any of the Applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15, of such opposition. The written statement of opposition should be filed alongwith the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

The classifications given beow in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2/- (postage extra if sent out of India). Requisition for the supply of the printed specifications should be accompained by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office. Photo copying charges may be calculated by adding the number of pages in the specification and drawing sheets mentioned below against each accepted specification and multiplying the same by four to get the charges as the copying charges per page are Rs. 4/-.

स्वीकृत सम्पूर्ण विनिर्देश

एतद्द्वारा यह सूचना दी जाती है कि सम्बद्ध आवेदनों में से किसी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोई व्यक्ति, इसके निर्गम की तिथि से 4 महीने या अग्रिम ऐसी अवधि जो उक्त 4 महीने की अवधि की समाप्ति के पूर्व पेटेंट नियम, 1972 के तहत विहित प्रपत्र-14 पर आवेदित एक महीने की अवधि से अधिक न हो, के भीतर कभी भी नियंत्रक, एकस्व को ऐसे विरोध की सूचना विहित प्रपत्र-15 पर दे सकते हैं। विरोध सम्बन्धी लिखित वक्तव्य, उक्त सूचना के साथ अथवा पेटेंट नियम, 1972 के नियम 36 में यथाविहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

"प्रत्येक विनिर्देश के संदर्भ में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अन्तरराष्ट्रीय वर्गीकरण के अनुरूप हैं।"

नीचे सूचीगत विनिर्देशों की सीमित संख्यक में मुद्रित प्रतियाँ, भारत सरकार बुक डिपो, 8, किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु यथासमय उपलब्ध होंगी। प्रत्येक विनिर्देश का मूल्य 2-/ रु० है (यदि भारत के बाहर भेजे जाएं तो अतिरिक्त डाक खर्च)। मुद्रित विनिर्देश की आपूर्ति हेतु मांग पत्र के साथ निम्नलिखित सूची में यथाप्रदर्शित विनिर्देशों की संख्या संलग्न रहनी चाहिए।

रूपांकन (चित्र आरेखों) की फोटो प्रतियां, यदि कोई हों, के साथ विनिर्देशों की टंकित अथवा फोटो प्रतियों की आपूर्ति पेटेंट कार्यालय, कलकत्ता द्वारा विहित लिप्यान्तरण प्रभार जिसे उक्त कार्यालय से पत्र-व्यवहार द्वारा सुनिश्चित करने के उपरांत उसकी अदायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख कागजों को जोड़कर उसे 4 से गुणा करके; (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण प्रभार 4/- रु० है) फोटो लिप्यान्तरण प्रभार का परिकलन किया जा सकता है।

CLASS : 190 C. 168621
Int. Cl. : F 04 19/00.

HYDROMOTIVE MACHINE APPARATUS AND METHOD OF CONSTRUCTING THE SAME.

Applicant & Inventor : HENRY K. OBERMEYER, 36 WICKHAMS FANCY, RIVERS EDGE ROAD, COLLINSVILLE, CONNECTICUT 06022, U.S.A.

Application No. 606/Cal/87, filed on 4th August, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

49 Claims

A hydromotive machine apparatus comprising :

(a) a bulkhead assembly having a distributor section defining an upstream face and a draft section defining a downstream face, said

bulkhead assembly being comprised of an array of water tubes having their longitudinal axes in parallel and being connected to each other to provide a truss structure defining a plurality of water flow paths extending from said upstream face to said downstream face; and

(b) a plurality of submersible hydromotive machines, each machine having a runner rotatably mounted thereon and being mounted on the bulkhead assembly in association with one of said water tubes and with its runner disposed within the waterflow path of its associated water tube.

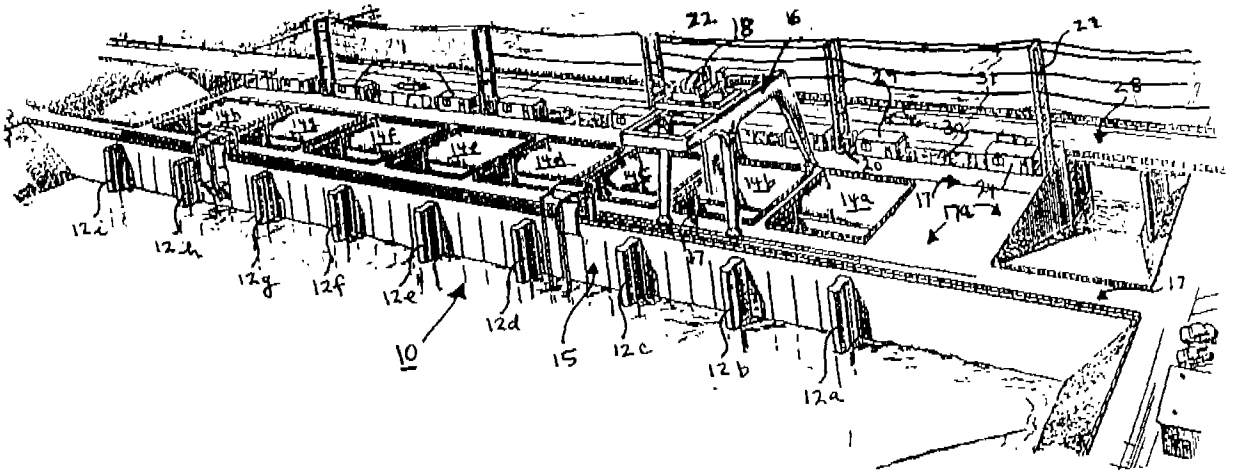


Fig. 1

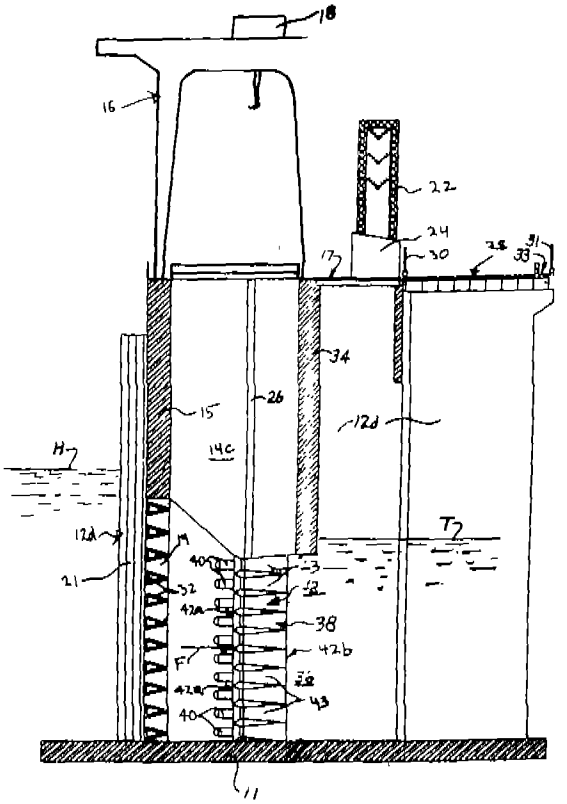


Fig. 1A

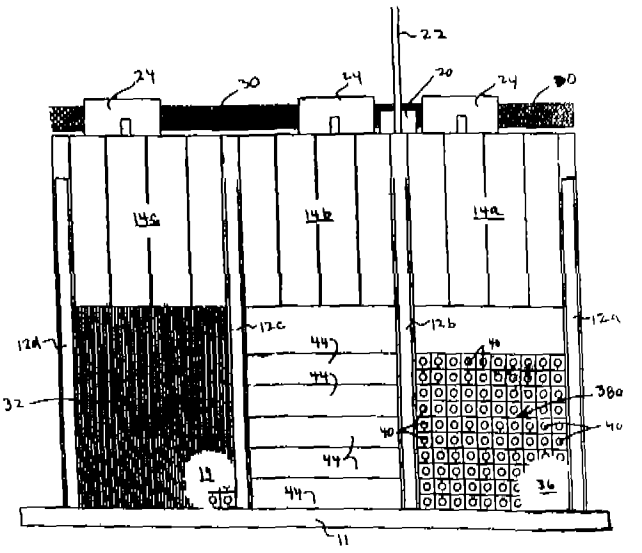


Fig. 1B

Compl. Specn. 47 Pages.

Drgs. 14 Sheets.

CLASS : 176-G. 168622
Int. Cl. : F 24 h 1/00.

APPARATUS FOR MONITORING THE CHEMISTRY OF WATER AND STEAM IN A STEAM GENERATOR STEAM CYCLE.

Applicant : COMBUSTION ENGINEERING, INC., OF 1000 PROSPECK HILL ROAD, WINDSOR, CONNECTICUT, 06095, U.S.A.

Inventors : (1) RONALD JACOB BARTO, (2) FRANK GABRIELLI, (3) NANCY CAROL MOHN.

Application No. 768/Cal/87, filed on 28th September, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

5 Claims

An apparatus for monitoring the chemistry of water and steam in a steam generator steam cycle to detect deviations thereof from specified levels, for diagnosing the need for corrections to be made in the chemistry of water and steam in the steam generator steam cycle, and for controlling the chemistry of water and steam in the steam generator steam cycle by implementing control corrections that are required to restore the chemistry of water and steam in the steam generator steam cycle to specified levels, comprising :

(a) monitoring means for monitoring the chemistry of water and steam at a plurality of pre-established locations in the steam generator steam cycle so as to detect deviations in the chemistry of water and steam from specified levels, said monitoring means generating signals in the form of data provided from process means instrumentation and in the form of data provided from samples obtained by means of continuous analyzers positioned at pre-established locations in the steam generator steam cycle representative of the chemistry of water and steam being monitored by said monitoring means, said continuous analyzers being positioned at a minimum of four pre-established locations in the steam generator steam cycle, a first one of said continuous analyzers being positioned at a first location in the steam generator steam cycle so as to provide data pertaining to conductivity of the feedwater of the steam generator steam cycle, a second one of said continuous analyzers being positioned at a second location in the steam generator steam cycle so as to provide data pertaining to a presence of ammonia, pH, hydrazine and dissolved oxygen in the feedwater of the steam generator steam cycle, a third one of said continuous analyzers being positioned at a third location in the steam generator steam cycle so as to provide data pertaining to the presence of pH, phosphate and silica in boilerwater of the steam generator steam cycle as well as data pertaining to specific conductivity of boilerwater of the steam generator steam cycle, and a fourth one of said continuous analyzers being positioned at a fourth location in the steam generator steam cycle so as to provide data pertaining to cation conductivity of steam of the steam generator steam cycle;

(b) diagnosing means connected in circuit relation with said monitoring means for receiving signals from said monitoring means as an input to said diagnosing means, said diagnosing means having a pre-established bank of data stored therein pertaining to optimization of the chemistry of water and steam in a steam generator steam cycle, said diagnosing means in response to signals being received thereby from said monitoring means indicating deviations in the chemistry of water and steam in the steam generator steam cycle from specified levels establishing corrections that are required to be made in the chemistry of water and steam in the steam generator steam cycle to restore the chemistry of water and steam in the steam generator steam cycle to specified levels, said diagnosing means further when a need for such corrections in the chemistry of water and steam in the steam generator steam cycle is deemed to exist producing an output representative of the nature of corrections that are required to be made in the chemistry of water and steam in the steam generator steam cycle to restore the chemistry of water and steam to specified levels; and

(c) control means connected in circuit relation with said diagnosing means for receiving said output therefrom, said control means having a pre-established bank of data stored therein pertaining to control of the chemistry of water and steam in a steam generator steam cycle, said control means upon receipt of said output from said diagnosing means establishing control corrections that are required to be made to the chemistry of water and steam in the steam generator steam cycle to restore the chemistry of water and steam to specified levels, said control means further effecting the implementation of control corrections that are required to be made to restore the chemistry of water and steam in the steam generator steam cycle to specified levels.

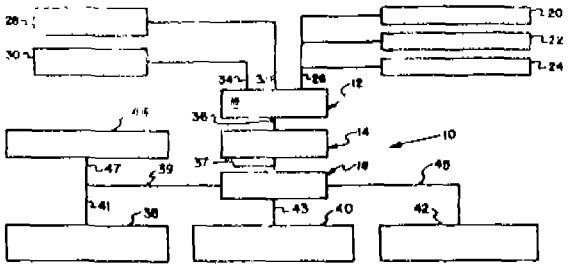


Fig. 1

Compl. Specn. 27 Pages. Drg. 1 Sheet.

CLASS : 70-C₂; 39-L. 168623
Int. Cl. : C 01 f 7/02.

AN IMPROVED PROCESS FOR SEPARATING INSOLUBLE RED MUD FROM BAYER PROCESS STREAMS.

Applicant : AMERICAN CYANAMID COMPANY, AT WAYNE, NEW JERSEY, U.S.A.

Inventors : (1) DONALD PAUL SPITZER, (2) DAVID WESLEY LIPP, (3) ALAN SOL ROTHENBERG, (4) HANS PETER PANZER.

Application No. 778/Cal/87, filed on 6th October, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

6 Claims

An improved process for separating insoluble red mud from Bayer process streams which comprises contacting and mixing a Bayer process steam with at least about 1.0 mg per liter of process stream of a polyamine having a molecular weight of at least about 10,000 so as to reduce the iron content of said stream, said polyamine being stable at high temperature and under strong caustic conditions.

Compl. Specn. 20 Pages. Drg. Nil.

CLASS : 185-C. 168624
Int. Cl. : a 23 f 3/00.

PROCESS FOR PREPARATION OF DEAROMATIS AND SUBSEQUENTLY REAROMATISED TEA.

Applicant : SKW TROSTBERG AKTIENGESELLSCHAFT, OF DR.-ALBERT-FRANK-STRASSE 32, D-8223 TROSTBERG, WEST GERMANY.

Inventors : (1)ERWIN SCHUTZ, (2) HEINZ-RUDIGER VOLLBRECHT.

Application No. 861/Cal/87, filed on 3rd November 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

16 Claims

A process for the preparation of dearomatised and subsequently re-aromatised black or green tea comprising :

(a) removing the volatile aroma components from moist tea with a moist inert gas with a relative moisture content of 80—95% at a temperaute of from 60 to 95°C by means of carrier gas distillation, wherein at temperatures above 80°C a contact zone with copper surfaces is used to produce dearomatised tea;

(b) selectively removing the water from the moist inert gas stream containing said volatile aroma components in the manner as herein described;

(c) if desired, decaffinating the dearomatised tea of step (a) above;

(d) subsequently passing the dewatered gas stream containing said volatile aroma components through dry tea obtained in step (a) or step(c) thereby allowing the dry tea to be rearomatised with the said dry inert gas stream.

Compl. Specn. 15 Pages. Drg. Nil.

CLASS : 40-F, 80-H. 168625
Int. Cl. : b 03 d 1/00.

AN IMPROVED PRESSURIZED FROTH FLOTATION MODULE FOR SEPARATING INKLADEN FOAM FROM AN AERATED PULP SLURRY TO FORM PAPER.

Applicant : BELOIT CORPORATION, OF P.O. BOX 350 BELOIT, WISCONSIN 53511, U.S.A.

Inventors : (1) JEFFREY LOEL CHAMBERLIN, (2) MICHAEL ANTONY MCCOOL.

Application No. 963/Cal/87, filed on 9th December 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

17 Claims

An improved pressurized froth flotation module (12) for separating ink-laden foam from an aerated pulp slurry (13) to form paper, comprising :

a body (40) defining a slurry-conducting zone permitting bubbles to rise therein to the surface of the slurry (13) in said zone;

an inlet (18, 42) connected to said body (40) and receiving slurry (13) from a slurry supply source;

a slurry outlet (20, 44) connected to said body (40) for directing slurry flow from said zone;

a reject outlet (22) connected to said body (40) for directing said bubbles in a flow from said zone;

said inlet (18, 42) and outlets (20, 22, 44) and said body (40) defining a substantially closed pressure vessel;

flow control devices (28, 30, 32) for controlling the flow rate of the slurry feed, the slurry flow and the reject flow to control the slurry surface level and the internal pressure in the module.

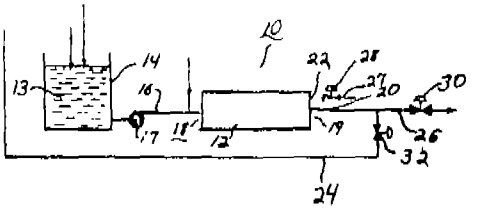


Fig. 1

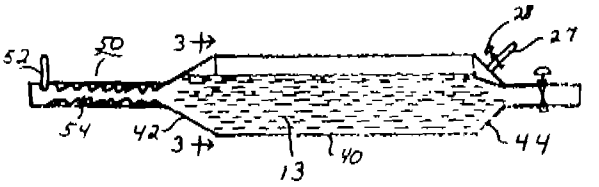


Fig. 2

Compl. Specn. 23 Pages. Drgs. 4 Sheets.

CLASS : 158C1. 168626
Int. Cl. : B 60 d 1/00.

A COUPLER YOKE.

Applicant : MCCONWAY & TORLEY CORPORATION, OF 109 48TH STREET, PITTSBURGH, PENNSYLVANIA 15201, U.S.A.

Inventor : WILLIAM OWEN ELLIOTT.

Application No. 980/Cal/87, filed on 16th December, 1987.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

7 Claims

A coupler yoke including a butt end portion having a rear draft gear seat at a generally right angle relation with each of top and bottom straps extending in a generally parallel and spaced apart relation to a yoke head portion having outwardly diverging keyslot walls extending from front draft gear pocket wall which faces said rear draft seat, a draft gear pocket being defined within the area surrounded by the rear draft gear, the front draft gear pocket wall and the top and bottom straps, said keyslot walls having elongated keyslot

openings each with a semicircular front end from end from which a nose portion extends forwardly therefrom, said nose portion having a blunt contour to the contour of a standard yoke by a foreshortened length to less than 3½ inches from a point at the forward most surface of said semicircular front end inside said keyslot to the forward most end of said nose portion.

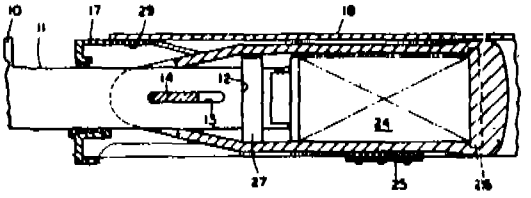


Fig. 1

Compl. Specn. 18 Pages. Drgs. 2 Sheets.

CLASS : 32-B. 168627
Int. Cl. : C 07 c 27/00, 29/00, 31/00, 33/00.

AN IMPROVED PROCESS FOR THE PREPARATION OF SATURATED AND UNSATURATED FATTY ALCOHOLS AND DIOLS FROM CARBONYL COMPOUNDS.

Applicant : IEL LIMITED, AT ICI HOUSE, 34 CHOWRINGHEE ROAD, CALCUTTA 700 071, WEST BENGAL, INDIA.

Inventors : (1) CHAKRAVARTHULA SRINIVASA NARASIMAHAN, (2) VINAYAK MADHUKAR DESHPANDE, (3) KRISHNAN RAMNARAYAN.

Application No. 996/Cal/87, filed on 23rd December, 1987 Comp. Specn. left on 15th December, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

6 Claims

An improved process for the preparation of saturated and unsaturated fatty alcohols and diols from carbonyl compounds by catalytic hydrogenation, said process comprises reacting a carbonyl compound such as herein described with hydrogen gas in the presence of a novel catalyst consisting of cobalt metal, a group IVA metal of the Periodic Table such as herein described and boron in combination with or without a carrier such as herein described at 160—180°C and 10 to 100 atmospheres, the molar ratio of hydrogen to the carbonyl compound being 1 : 2 to 1 : 20 and in the catalyst the atomic ratio of the cobalt metal to the group IVA metal of the periodic Table being 1 : 0.5 to 1 : 4 and the atomic ratio of the cobalt metal to boron being 1 : 0.03 to 1 : 2 and the molar ratio of the cobalt metal to the carrier being 3 : 100 to 40 : 100 and isolating the alcohols and diols formed from the reaction in a known manner such as herein described.

Compl. Specn. 13 Pages. Drg. Nil.
Provl. Specn. 11 Pages. Drg. Nil.

CLASS : 40-F. 168628
Int. Cl. : B 01 j 12/00; H 01 s 1/00.

MEDIUM FOR GAS LASER EXCITED BY IONIZING PARTICLES.

Applicant : NAUCHNO-ISSLEDOVATELSKY TSENTR PO TEKHNOLOGICHESKIM LAZERAM AKADEMII NAUK SSSR, OF MOSKOVSKAYA OBLAST, SHATURA, GLAVPOCHTAMT, SORTIROVKA—NITSTL, USSR.

Inventors : (1) ANDREI JURIEVICH ALEXANDROV, (2) VIKTOR ALEXANDROVICH DOLGIKH, (3) OLEG MOVSUMOVICH KERIMOV, (4) ALEXEI JURIEVICH SAMARIN, (5) IGOR GEORGIEVICH RUDOI, (6) ARKADY MATVEEVICH SOROKA.

Application No. 47/Cal/88, filed on 20th January, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

1 Claim

A gas laser medium excited by ionizing particles containing helium, neon and argon or Krypton and at least one more additional component selected from the group consisting of xenon, hydrogen, hydrogen isotopes, or mixtures thereof, the total concentration of the laser medium being at least 10^{19} cm^{-3} and the argon or krypton concentration ranging from 3.10^{16} cm^{-3} upto a value which is about 15% of the total concentration, the concentration of each of the additional components or mixtures thereof ranging from 10^{15} cm^{-3} upto a value which is about 20% of the concentration of argon or Krypton.

Compl. Specn. 12 Pages. Drgs. 2 Sheets.

CLASS : 55-E4. 168629
Int. Cl. : A 61 k 39/00, 39/02.

PROCESS OF PREPARING NOVEL IMMUNOGLOBULIN.

Applicant : BIOTEST PHARMA GMBH, OF LANDSTEINERSTRASSE 5, D-6072 DREIEICH, WEST GERMANY.

Inventors : (1) DR. HERBERT DICHTELMULLER, (2) DR. WOLFGANG STEPHAN, (3) DR. REINHARD LISSNER, (4) DR. RUDIGER ARNDT.

Application No. 222/Cal/89, filed on 17th March, 1989.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

6 Claims

Process of producing immunoglobulin having effective, neutralizing antibody activity against bacteria and bacterial toxins as of Yersinia, Campylobacter, enterpathogenic and enterohaemorragic E. coli, Salmonella, Pseudomonas, Staphylococcus and antibody

activity against candida albicans, cryptosporidia, Isospora belli, Toxoplasma gondii, being obtained from colostral milk from non immunized mammals in the first 30 hours post partum comprising

(a) dilution of the colostral milk by addition of distilled water

(b) pasteurization of the diluted colostral milk

(c) removal of the fat from the diluted and pasteurised colostral milk

(d) precipitation and removal of casin from the milk obtained at step (c)

(e) concentration of the colostral whey obtained at step (d) and

(f) stabilization of the concentrated colostral whey obtained at step (e),

all of the steps (b) to [illegible] carried out in a known manner; optionally treating the concentrated whey, before or after stabilization step, with octanoic acid.

Compl. Specn. 18 Pages. Drgs. 4 Sheets.

CLASS : 137-F. 168630
Int. Cl. : G 04 f 5/02, 10/10.

AN ELECTRONIC METRONOME PARTICULARLY FOR INDIAN CLASSICAL MUSIC.

Applicant & Inventor : SOURINDRA MOHAN ROY, 181, LAKE GARDENS, 1ST FLOOR, CALCUTTA-700 045, WEST BENGAL, INDIA.

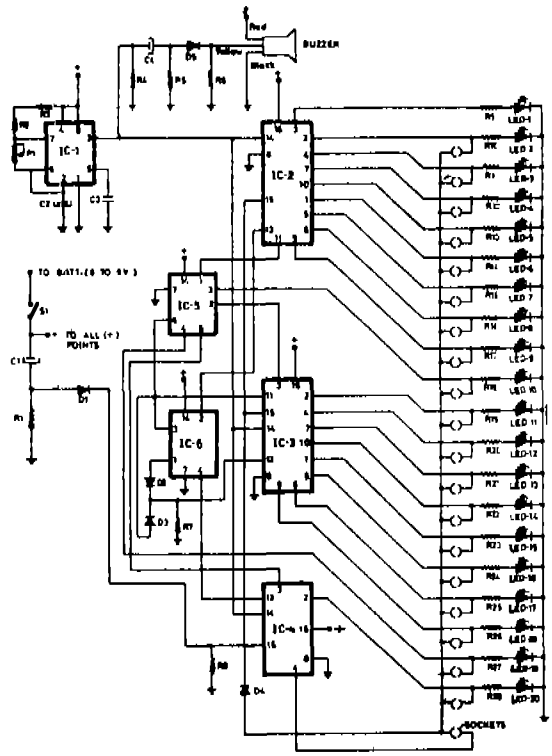
Application No. 370/Cal/89, filed on 15th May, 1989.

Complete Specification left on 30th July, 1990.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

6 Claims

An electronic metronome particularly for Indian Classical music with a plurality of light emitting diodes (LEDs) and speaker or buzzer for positive audiovisual indication of 'Matras' (beats) of a complete 'Tal' (Rhythm) in Indian classical music and dance, comprising plurality of integrated circuit devices having pulse generator I.C. (I.C. 1) coupled to three counter I.C., (I.C. 2, 3, 4) wherein the said counter I.C.s are inter coupled with a Gate (I.C. 5) and an inverter I.C., (I.C. 6) the said plurality of I.C. devices being balanced appropriately with RC circuit and diode means, the output of the said counter I.C.s (I.C. 2, 3, 4) and Gate I.C. (I.C. 5) device are connected to predetermined LED terminals with sockets in the reset line, the pulse generator (I.C. 1) being controlled by a potentimeter for controlling the tempo (speed), the buzzer or speaker is coupled to the output of the said pulse generator I.C. (I.C. 1) the said device being mounted compositely on a printed circuit board and being placed in a housing, on top pannel of which LEDs and the sockets being mounted side by side, further having a male plug for the said sockets, and battery/power means to energize the complete device.



Compl. Specn. 12 Pages. Drg. 1 Sheet.
Prov. Specn. 4 Pages. Drg. Nil.

CLASS : 176-H, I. 168631
Int. Cl. : f 16 l 55/00.

SEALING DEVICE FOR A PIPELINE, IN PARTICULAR FOR A LOOP LINE ON A STEAM GENERATOR HEMISPHERE.

Applicant : SIEMENS AKTIENGESELLSCHAFT, OF WITTELSBACHERPLATZ 2, D-8000, MUNCHEN 2, WEST GERMANY.

Inventors : (1) JAKOB STAUNER, (2) JOHANNES STOSS.

Application No. 23/Cal/88, filed on 11th January, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

5 Claims

A sealing assembly for connecting a pipeline and a steam generator, said assembly comprising a connector having a mouth for connecting the pipeline on one side and the steam generator on the other side, said connector enclosing a sealing device which comprises a plurality of serially disposed rubber hose seals defining an intermediate space there-between to be pressure monitored, means for subjecting said rubber hose seals to a pressure medium, feed rollers for guiding the sealing device, a bracing device having radially outwardly movable clamping blocks and clamping angles, means for moving said clamping blocks outward, and means for axially fixing said clamping elbows against the mouth of the connector.

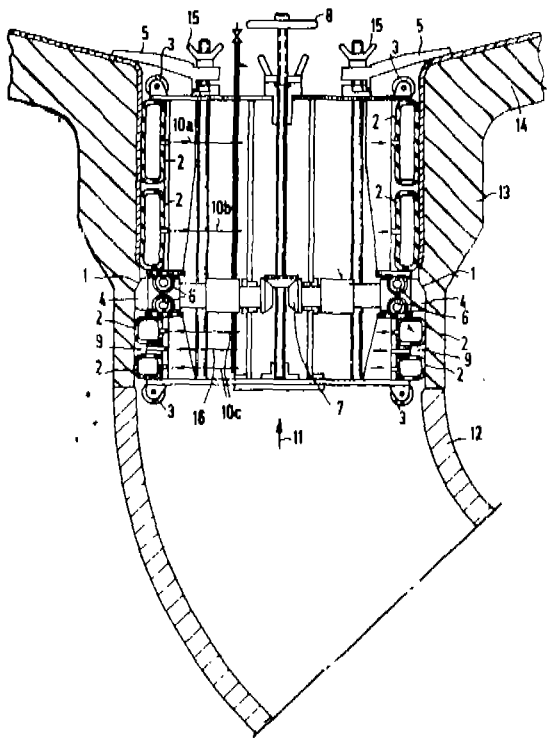


Fig. 1

Compl. Specn. 11 Pages. Drgs. 2 Sheets.

CLASS : 28-C. 168632
Int. Cl. : F 23 d 14/00, 17/00.

BURNER FOR OPERATION WITH GAS AND/OR OIL.

Applicant : SIEMENS AKTIENGESELLSCHAFT, OF WITTELSBACHERPLATZ 2, D-8000, MUNCHEN 2, WEST GERMANY.

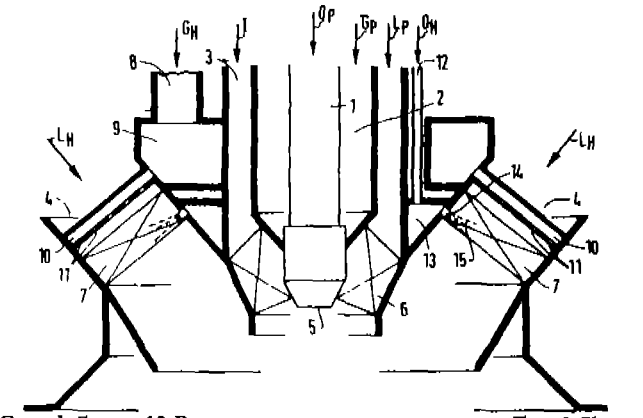
Inventor : HELMUT MAGHON.

Application No. 24/Cal/88, filed on 12th January, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

12 Claims

Burner for operation with gas (6) and/or oil (0) comprising a central pilot burner system (1, 2, 3, 5, 6) selectively operable with gas and/or oil as a diffusion burner and as a separate pre-mixing burner, and an annular main burner system (4, 7) surrounding said pilot burner system and carrying a primary air flow, characterised in that said main burner system includes a multiplicity of first nozzles (11) admixing gas (G_H) with the primary air flow (L_H) for pre-mixing operation, and second inlet nozzles (14) pre-mixing oil (O_H) into the primary air-flow (L_H).



Compl. Specn. 13 Pages. Drg. 1 Sheet.

CLASS : 139-A. 168633
Int. Cl. : D 01 f 9/12.

A PROCESS AND AN APPARATUS FOR PRODUCING ANISOTROPIC CARBON FIBRES.

Applicant : DIDIER ENGINEERING GMBH, OF ALFRED-STRASSE 28, D-4300, ESSEN 1, WEST GERMANY.

Inventors : (1) RUDOLF GEIER, (2) ROLF JOEST, (3) WILHELM WULLSCHEIDT.

Application No. 38/Cal/88, filed on 15th January, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

8 Claims

A process for producing anisotropic carbon fibres from coal or lignite tar pitch, more particularly coal tar pitch which comprises filtering the pitch to remove from it all non-melting constituents, thereafter distilling the pitch so obtained in a thin film evaporator to remove volatile constituents to obtain a pitch melt, whereafter the pitch fibres are spun from the resulting pitch melt, the spun fibres being then oxidised, carbonised and graphitized in a conventional manner characterized in that the pitch filtrate obtained from the filteration step is concentrated in said thin film evaporator into a mesophase-forming pitch fraction and the resulting pitch concentrate is converted into a mesophase pitch by heat treatment, at a temperature of 400°C to 500°C.

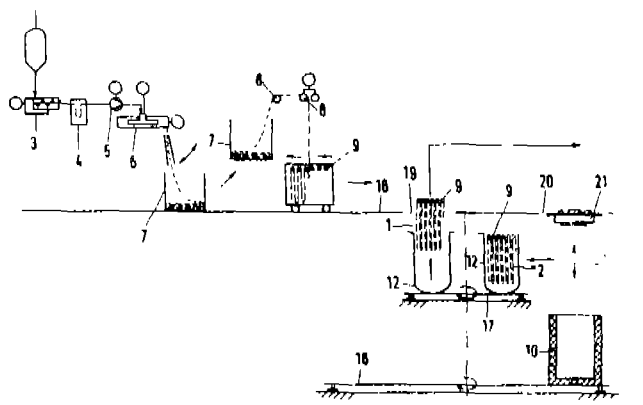


Fig. 1

Compl. Specn. 20 Pages. Drgs. 8 Sheets.

CLASS : 107-G, J. 168634
Int. Cl. : F 02 b 75/00.

AN INTERNAL COMBUSTION ENGINE WITH IMPROVED RETARDING SYSTEM.

Applicant : THE JACOBS MANUFACTURING COMPANY, AT 22 EAST DUDLEYTOWN ROAD, BLOOMFIELD, CONNECTICUT 06002, U.S.A.

Inventors : (1) ROBERT BRUCE PRICE, (2) DAVID EDWARD BOYDEN.

Application No. 54/Cal/88, filed on 25th January, 1988.

[Divisional of Appln. No. 250/Cal/84 Ante-dated to April 18, 1984]

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

3 Claims

An internal combustion engine with improved retarding system, which has a fueling mode convertible during a compression release event to a brake and vice versa, said internal combustion engine having an intake manifold, a divided exhaust manifold, a turbocharger including a radial in-flow exhaust gas turbine having a flagned turbine wheel and a divided volute defining a front scroll and a rear scroll, said front scroll being located closer to the flanged side of the flanged turbine wheel than said rear scroll, a diverter valve interposed between said divided exhaust manifold and said divided volute of said turbocharger turbine, a compression release mechanism being provided within the housing of the engine, for converting the engine from its fueling mode operation into a brake whereby said compression release mechanism opens an exhaust valve of a cylinder near the end of a compression stroke of that cylinder, said mechanism and said diverter valve being adapted to be simultaneously actuated to direct continuously all of the flow of air from said divided exhaust manifold to the portion of said front scroll of said turbine volute which is closest to the axis of rotation of said flanged turbine wheel whereby the rotational speed of the turbocharger is increased;

said diverter valve having : means for inhibiting the mass flow of air from said divided exhaust manifold; means for compressing said increased mass flow of air from said turbocharger in said engine; and means for periodically releasing said increased mass of comressed air to said exhaust manifold near the end of the compression stroke of said engine; the arrangement being such that all of said increased mass flow of air is adapted to be continuously directed through said diverter valve to the portion of said front scroll of said turbine volute which is closest to the axis of rotation of said flanged turbine wheel whereby the rotational speed of said turbine is further increased to maximize the retarding horsepower developed by the engine and thereby its operation as a brake, whereby the rotational speed of the turbocharger is capable of being increased and the mass flow of air through the turbocharger to said intake manifold is capable of being increased.

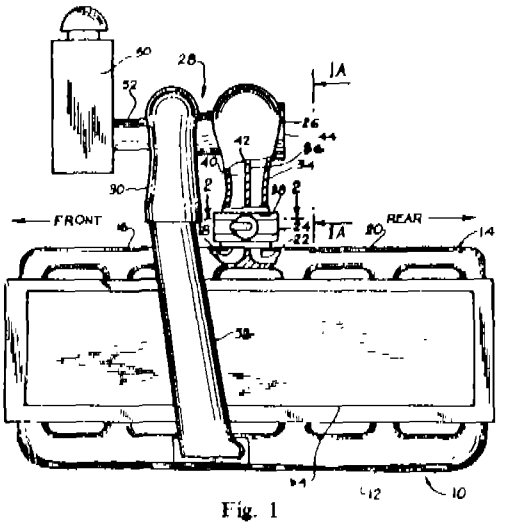


Fig. 1

Compl. Specn. 21 Pages. Drgs. 6 Sheets.

CLASS : 69-A. 168635
Int. Cl. : H 02 h 3/00.

CIRCUIT INTERRUPTER APPARATUS WITH A BATTERY BACKUP AND RESET CIRCUIT.

Applicant : WESTINGHOUSE ELECTRIC CORPORATION, OF WESTINGHOUSE BUILDING, GATEWAY CENTER, PITTSBURGH, PENNSYLVANIA 15222, U.S.A.

Inventors : (1) JOSEPH JACOB MATSKO, (2) GARY FRANCIS SALETTA.

Application No. 66/Cal/88, filed on 28th January, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

12 Claims

A circuit interrupter apparatus comprising :

interrupting means disposed in a normally conducting electrical circuit and effective for interrupting current flow through said electrical circuit upon reception of a trip signal;

conditioning; means coupled to said electrical circuit for conditioning a current value proportionate to such current flow, said conditioning means producing a conditioned signal representative of the magnitude of said current value;

operating means effective for deriving at least one operating characteristic from said conditioned signal, said operating means further effective for comparing said at least one operating characteristic to a corresponding at least one tripping parameter and generating said trip signal when said at least one operating characteristic is at least equal to said corresponding at least one preselected tripping parameter;

and characterized in that, trip indicating means coupled to said operating means for providing a cause of trip indication of said at least one operating characteristic that initiated said trip signal, said trip indicating means including at least one display element;

auctioneering means coupled to said trip indicating means providing the higher of a first and a second power source to said at least one display element,said first power source being a DC power supply having a regulated DC voltage output and an input connected to said conditioning means such that said DC power supply produces said DC voltage output as a function of said current value, said second power source being an energy storage element having a fixed DC voltage output; and

reset means coupled to said operating means for initiating a restart of said operating means corresponding to an initialization of said conditioning means, said reset means including a resetting element and a switching element which is activated only upon the presence of said regulated DC voltage output of said first power source.

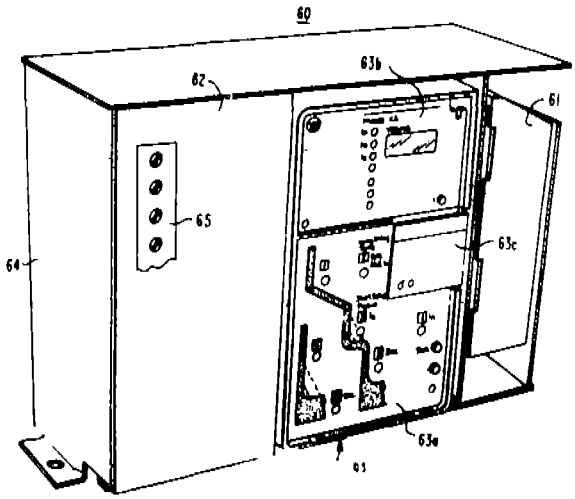


Fig. 2

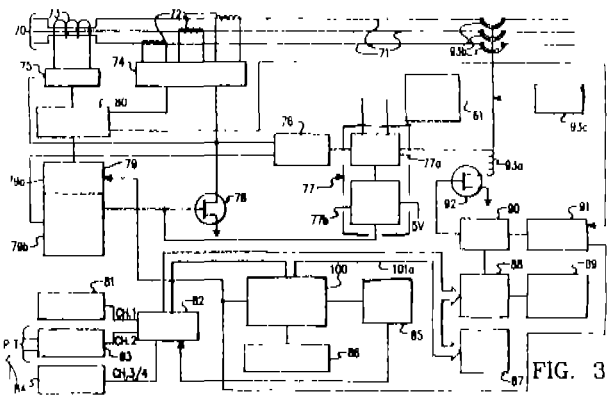


FIG. 3

Fig. 3

Compl. Specn. 69 Pages. Drgs. 27 Sheets.

CLASS : 130-E, F. 168636
Int. Cl. : C 21 b 3/00.

A GAS INJECTION CARTRIDGE AND APPARATUS.

Applicant : INJECTALL LIMITED, OF ABBEY HOUSE, 453 ABBEY LANE, SHEFFIELD, S7 2RA, ENGLAND.

Inventors : (1) ANTHONY THROWER, (2) JOHN RICHARD GELSTHRPE.

Application No. 118/Cal/88, filed on 10th February, 1988.

(Convention dated 18th February, 1987; NO. 8703717; U.K)

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

5 Claims

A gas injection cartridge, for use in injecting gas through the wall of a vessel into a high temperature liquid contained therein, the cartridge comprising a gas-impermeable sleeve e.g. made of metal, open at both ends, said sleeve being blocked adjacent each of its opposite open ends by a compressible wad od known fibrous refractory material, and containing, between the wads, filling of a known particulate refractory matter, both, wads and the filing, being permeable to gases, the cartridge so formed being thus permeable to gas flow from its one end to the other but impermeable to liquid flow therethrough.

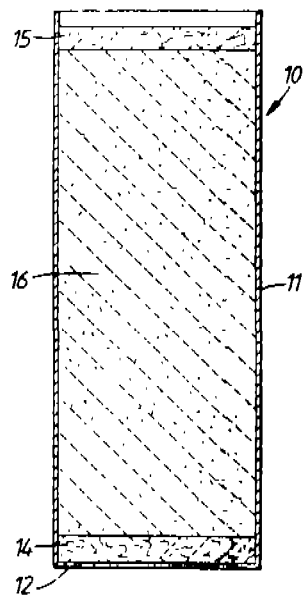


Fig. 1

Compl. Specn. 29 Pages. Drgs. 4 Sheets.

CLASS : 40-F. 168637
Int. Cl. : B 01 j 19/00.

AN IMPROVED METHOD FOR THE PREPARATION OF POROUS STABILIZED RICE BRAN EXTRUDATE AND AN APPARATUS THEREFOR.

Applicant & Inventor : SUSHIM KUMAR DEV, 73, SADAR BAKSHI LANE, HOWRAH, WEST BENGAL, INDIA.

Application No. 186/Cal/88, filed on 2nd March, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

24 Claims

An improved method for the preparation of porous stabilized rice bran extrudates, which comprises subjecting the rice bran to extrusion & cooling characterized in that the rice bran is subjected to a first stage operation in an extruder, thereby to subject the rice bran to simultaneous kneading/mixing as well as shearing, grinding and agglomeration and in the presence of self-generated heat in said extruder, the material obtained from the said first stage being thereafter subjected to extrusion in a second stage while moving continuously through the extruder to obtain hot extrudate, whereafter, in a third stage, the said extrudate is held in an enclosure at a temperature which is lower than the temperature of the hot extrudate and thereafter subjecting the material so obtained to drying and cooling to room temperature to obtain porous and stabilized rice bran extrudates.

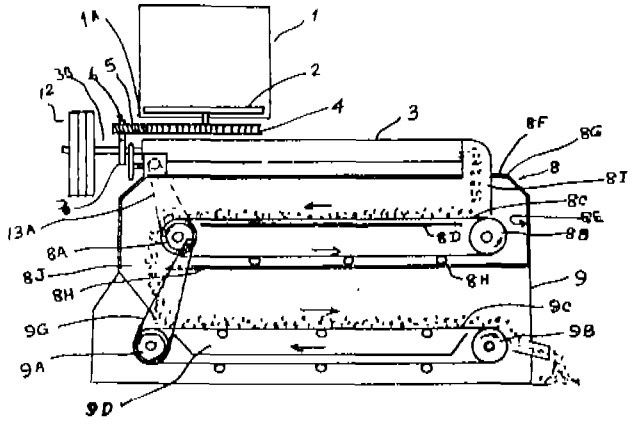


Fig. 1

Compl. Specn. 28 Pages. Drgs. 2 Sheets.

CLASS : 83-B2. 168638
Int. Cl. : A 61 1 2/00.

IMPROVEMENTS IN A STERILIZER INCLUDING A VENTING MECHANISM PROVIDED TO VENT STEAM.

Applicant : CASTLE COMPANY, 1777 EAST HENRIETTA ROAD, P.O. BOX 23077 ROCHESTER, NEW YORK 14692-3077, U.S.A.

Inventor : DONALD WARREN ALBRIGHT.

Application No. 188/Cal/88, filed on 4th March, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

4 Claims

In a sterilizer operated to effect elevated temperature and pressure conditions within a closed chamber during a procedure for sterilizing liquid loads, including a venting mechanism provided to vent steam from said chamber during a venting period, thereby to reduce the pressure within said chamber to approximately atmospheric pressure, the improvement which comprises;

a venting mechanism provided to effect a variable flow coefficient;

sensing means positioned to monitor either or both the temperature and pressure within said chamber; and control means operably associated with said venting mechanism and responsively associated with said sensing means to provide and increased effective flow coefficient for said venting mechanism corresponding to decreases in pressure within said chamber during said venting period.

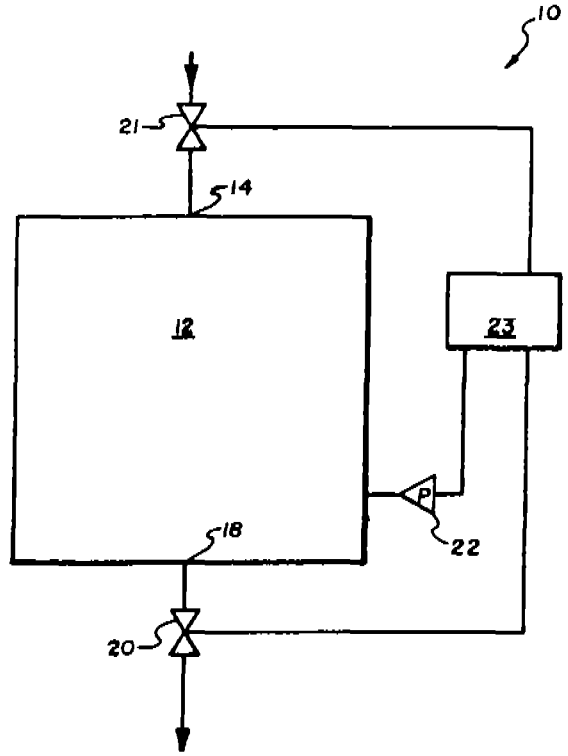


Fig. 1

Compl. Specn. 14 Pages. Drg. Nil.

CLASS : 128-C. 168639
Int. Cl. : A 61 b 6/00.

DEVICE FOR ELECTROANALGESIA OF PATIENTS' TISSUES.

Applicants & Inventors : VIKTOR ALEXANDROVICH BUDYKO, USSR, ZAPORAZHIE, ULITSA MIRA 20, KV, 60; VLADIMIR VLADIMIROVICH KONOVALENKO, USSR, ZAPROZHIE, ULITSA VODONAPORNAVA 16 A; ANDREI FEDOSEEVICH IVANCHENKO, USSR, ZAPOROZHIE, ULITSA ANGOLENKO, 14A, KV. 17; VALENTIN DMITRIEVICH KUTSOV, USSR, ZAPOROZHIE, ULITSA KEDROVAVA, 67 BORIS NIKOLAEVICH LASTOCHKIN, USSR, ZAPOROZHIE, PROSPEKT, LENINA 58, KV. 4; VLADIMIR MIKHAILOVICH KROKHMAL USSR, ZAPOROZHIE, PROSPEKT 40 LET POBEDV, 51, KV. 135; NIKOLAI NIKOLAEVICH ZHDAN, USSR, ZAPOROZHIE, ULITSA SVTOVA, 2, KV. 32, ALL ARE U.S.S.R.

Application No. 221/Cal/88, filed on 16th March, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

2 Claims

A device for electroanalgesia of patient's tissues, comprising a generator of asymmetric pulses, a first of said pulses at the output thereof having a longer duration to provide electro-analgesia of the patient's tissues accompanied by their polarization, a second of said pulses produced by the generator having shorter duration to provide depolarization of the patient's tissues and connected through its output to the input of a current regulator; the output of the current regulator is connected to the input of a current stabilizer; electrodes connected to said input and said output of the current stabilizer for connection directly to the patient and to means comprising a dental engine for exerting a therapeutic effect upon the patient; characterized in a pulse shaper having an input connected to one of the electrodes for producing a pulse in response to the closure of the electric circuit of the electrodes through the patient's tissues; the output of said pulse shaper unit connected to the input of a trigger unit of the generator of asymmetric pulses to initiate the generator from a shorter-duration pulse; the output of the latter is connected to the input of the generator of asymmetric pulses.

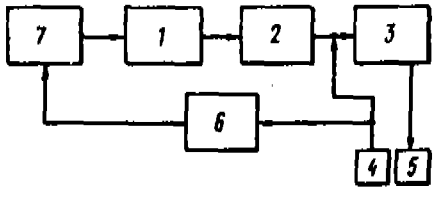


Fig. 1

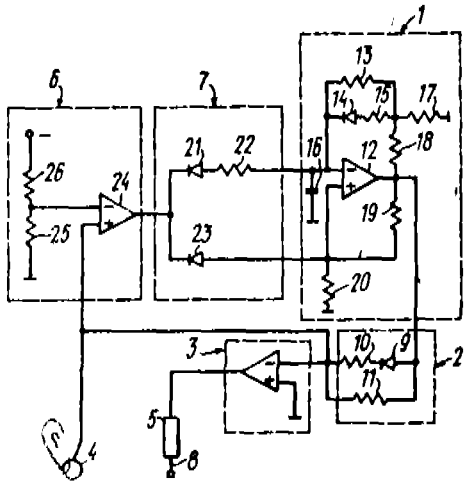


Fig. 2

Compl. Sr ... 15 Pages. Drgs. 2 Sheets.

CLASS : 25-A, B. 168640
Int. Cl. : E 04 c 2/00.

SLAB-SHAPED COMPOSITE ELEMENT FOR BUILDING PURPOSES.

Applicant : CARRYSPACE LEICHTBAUELEMENTE GMBH, OF MALKASTENSTRASSE 3, D-4000 DUSSELDORF 1, WEST GERMANY.

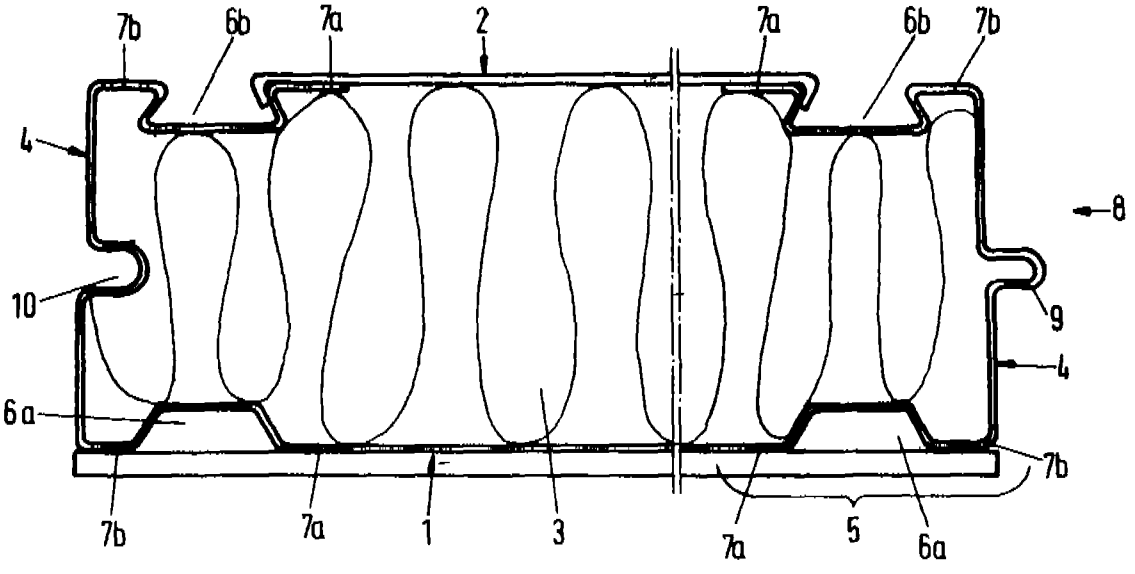
Inventor : SIEGFRIED R. DINGEL.

Application No. 239/Cal/88, filed on 22nd March, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

2 Claims

Slab-shaped composite element for building purposes having two mutually parallel lateral surface layers (1, 2) and edge profiles (4) of U-shaped cross section arranged on the longitudinal edges, the members (5) of which are oriented towards each other and support the edges of the surface layers (1, 2), whilst the shape between the surface layers (1, 2) and the interior of the edge profiles (4) is filled with hard foam (3) and the members (5) have inwardly projecting grooves (6a, 6b) parallel to the outer edges of the element, characterized in that the regions (7a, 7b) of the members (5) adjoining the respective groove (6a, 6b) are aligned mutually.



Compl. Specn. 6 Pages. Drg. 1 Sheet.

Ind. Cl. : 172 F [GROUP XX] 168641
Int. Cl.[4] : G 02 B 26/02

DEVICE FOR DETERMINING THE SURFACE STRUCTURE OF A LONGITUDINALLY EXTENDED TEST BODY, ESPECIALLY FOR MEASURING THE HAIRINESS OF A YARN.

Applicant : ZELLWEGER USTER LTD., OF WILSTRASSE 11, CH-8610 USTER, SWITZERLAND, A SWISS COMPANY.

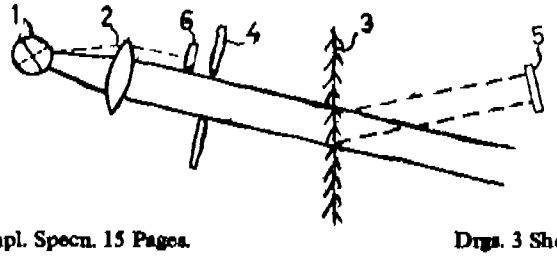
Inventors : (1) ERNST FELIX & (2) HANS WAMPFLER.

Application No. 988/Mas/86, filed on 17th December, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras.

4 Claims

Device for determining the surface structure of a longitudinally extended test body, especially for measuring the hairiness of a yarn, comprising a light transmitter (1) for illuminating the test body from one side and a receiver for receiving and evaluating light reflected by the surface of the test body depending on the structure of the surface, a screen means (18) having an optical system with a central diaphragm, and an absorber screen (21) placed between the said transmitter (1) and the said receiver (5) for screening direct light from the said one illuminated side of the test body wherein the receiver (5) has means to detect only light which is reflected from one side of the test body (3) opposite to said one side and which is within a predetermined measuring field.



Compl. Specn. 15 Pages. Drgs. 3 Sheets.

Ind. Cl. : 70-C$_7$ &-152-E. [GROUPS—LVIII(5) & XII (2)] 168642
Int. Cl.[4] : C 08 L 77/00, C 25 D 9/02.

A BINDER COMPOSITION FOR CATHODIC ELECTRO-COATING.

Applicant : BASF LACKE AND FARBEN AG, A GERMAN JOINT STOCK COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF THE FEDERAL REPUBLIC OF GERMANY, WITH A REGISTERED OFFICE AT 4400 MUENSTER, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) EBERHARD SCHUPP, (2) ROLF OSTERLOH, (3) WERNER LOCH, (4) KLAAS AHLERS.

Application No. 905/Mas/86, filed on 25th November, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

6 Claims

A binder composition for cathodic electrocoating which is based on polyadducts/polycondensates which carry basic nitrogen groups and are rendered water-dilutable by protonation with an acid, and one or more crosslinking agents for these polyadducts/polycondensates, consisting of a mixture of

(A) from 50 to 90% by weight of a polyadduct/polycondensate which carries basic nitrogen groups which is a reaction product of

(a) an adduct of a secondary amine and a polyepoxide compound, the adduct still containing free expoxide groups, with

(b) a condensate which contains primary amino groups and is obtained from a primary diamine of 4 to 20 carbon atoms and one or more mono- and/or dicarboxylic acids of 6 to 36 carbon atoms, with the proviso that one or more

primary amino groups of the condensate (b) are used per free epoxide group of the adduct (a),

and

(B) from 10 to 50% by weight of a crosslinking agent which does not react with component (A) at room tempeature but reacts with the latter at elevated temperatures with crosslinking.

Compl. Specn. 16 Pages. Drg. Nil.

Ind. Cl. : 70-C_7 & 152-E. [GROUPS-LVIII (5) & XII (2)] 168643
Int. $Cl.^4$: C 08 L 77/00; C 25 D 9/02

A BINDER COMPOSITION FOR CATHODIC ELECTRO-COATING.

Applicant : BASF LACKE & FARBEN AG., A GERMAN JOINT STOCK COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF THE FEDERAL REPUBLIC OF GERMANY, OF 4400 MUENSTER, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) EBERHARD SCHUPP, (2) ROLF OSTERLOH, (3) WERNER LOCH, (4) KLAAS AHLERS.

Application No. 904/Mas/86, filed on 25th November, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

7 Claims

A binder composition for cathodic electrocoating which is based on polyadducts/polycondensates which carry basic nitrogen groups and are rendered water-dilutable by protonation with an acid, and one or more crosslinking agents for these polyadducts/polycondensates, and consists of a mixture of

(A) from 50 to 90% by weight of a polyadducts/polycondensates which carries basic nitrogen groups which is a reaction product of

(a) an epoxide-free adduct of aliphatic secondary amine with 2 to 36 carbon atoms and polyepoxide compound with

(b) a condensate of a aliphatic diamine with 2 to 14 carbon atoms/polyepoxide adduct which is prepared in the presence of excess diamine and separated off from excess diamine after complete conversion of the epoxide groups, with one or more mono- and/or dicarboxylic acids of 6 to 40 carbon atoms, with the proviso that the reaction of (a) with (b) is carried out at about 100—250°C,

and

(B) from 10 to 50% by weight of crosslinking agent which does not react with component (A) at room temperature but reacts with the latter at elevated temperatures with crosslinking.

the sum of the percentages states under (A) and (B) being 100.

Compl. Specn. 17 Pages. Drg. Nil.

Ind. Cl. : 32 E [GROUP-IX (1)]. 168644
Int. $Cl.^4$: C 08 F 116/34, C 09 K 21/12.

A FIRE-RESISTANT THERMOPLASTIC COMPOSITION.

Applicant : MONSANTO COMPANY, A CORPORATION OF THE STATE OF DELAWARE, U.S.A., OF 800 NORTH LINDBERGH BOULEVARD ST. LOUIS, MISSOURI 63167, U. S. A.

Inventor : ILDEFONSO LUIS GOMEZ.

Application No. 1001/Mas/86, filed on 22nd December, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

5 Claims

A fire-resistant thermoplastic composition comprising :

mixing polyvinyl butyral resin with 38 to 46% by weight of the said resin, a composition for imparting fire resistance consisting of

(a) 80 to 90 weight % of a plasticizer blend having a char-forming component and an oxygen sequestering agent in the ratio between 7 : 1 and 13 : 1, wherein the char-forming component is an organic phosphate and the oxygen sequestering agent is an organic phosphite as herein described;

(b) 2 to 8 weight % of fumed silica as nucleating agent for dispersing fire decomposition products of the composition;

(c) 2 to 2.6 weight % of a heat reactive bonding resin such as herein described;

(d) optionally upto 10 weight % of known additives such as flame retardant additives, dyes, stabilizers adhesion control-salts.

Compl. Specn. 18 Pages. Drg. Nil.

Ind. Cl. : 32 E [GROUP-IX (1)]. 168645
Int. $Cl.^4$: C 08 F 116/34, C0 9K 21/12.

A FIRE-RESISTANT INTERLAYER SHEET.

Applicant : MONSANTO COMPANY, A CORPORATION OF THE STATE OF DELAWARE, U.S.A., OF 800 NORTH LINDBERGH BOULEVARD, ST LOUIS, MISSOURI 63167, U. S. A.

Inventor : ILDEFONSO LUIS GOMEZ.

Application No. 1002/Mas/86, filed on 22nd December, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

5 Claims

A fire-resistant interlayer sheet made by casting a fire-resistant thermoplastic composition consisting of polyvinyl butyral resin and a composition for imparting fire-resistance in an amount of 38 to 46 weight % based on the weight of the said resin, the said composition for imparting fire-resistance comprises :

(a) 80 to 90 weight % plasticizer blend having a charforming component and an oxygen sequestering agent, wherein the char-forming component being organic phosphate and the oxygen sequestering agent being organic phosphite as herein described;

(b) 2 to 8 weight % of a fumed silica as a neucleating agent for dispersing fire decomposition products of the interlayer;

(c) 2 to 2.6 weight % heat reactive bonding resin such as herein described and

(d) optionally upto 10 weight % of known additives such as flame retardant additives, dyes, stabilizers, and adhesion control-salts.

Compl. Specn 17 Pages. Drg. Nil.

Ind. Cl. : 40 F [GROUP IV (1)]. 168646
Int. Cl.[4] : B 01 J 8/18.

DEVICE FOR UNCLOGGING THE FLUIDIZATION GAS SUPPLY TUBES IN A GRID CARRYING A BED OF PARTICLES TO BE FLUIDIZED.

Applicant : CHARBONNAGES DE FRANCE (ESTABLISSEMENT PUBLIC) OF 9 AVENUE PERCIER, 75008 PARIS, FRANCE, A FRENCH COMPANY.

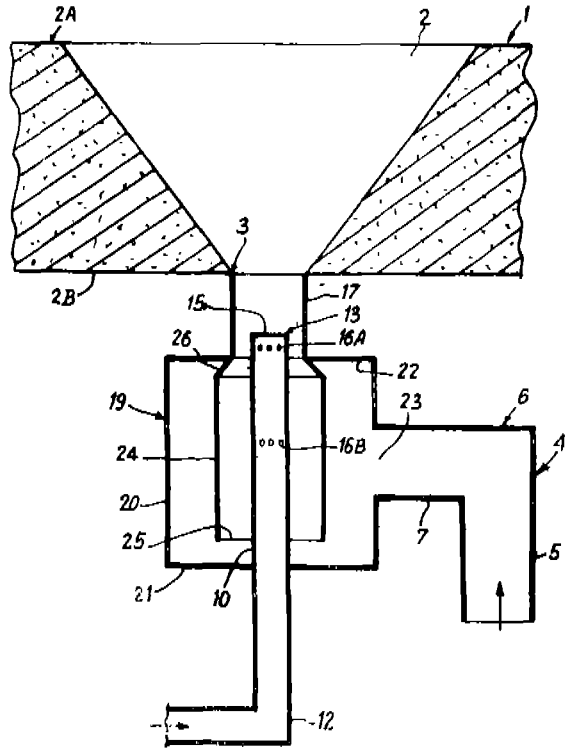
Inventors : (1) DELEBARRE ARNAUD & (2) WITWICKI PAUL.

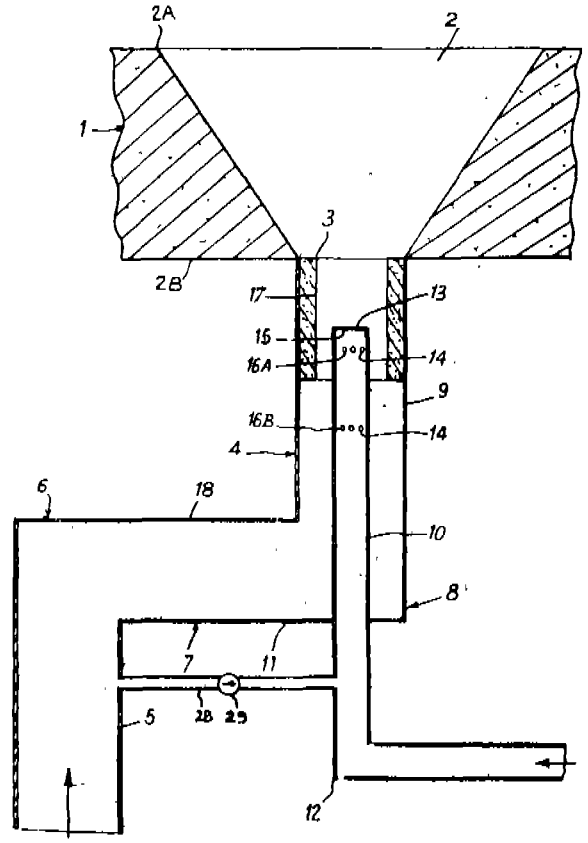
Application No. 826/Mas/86, filed on 20th October, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

10 Claims

Device for unclogging the fluidization gas supply tubes (4) in a grid (1) carrying a bed of particles to be fluidized, comprising means for stopping the fall of said particles during stoppages of operation, the said means having an erect tubular end part (9,24) joined to a corresponding lower inlet (3) of the grid an injection tube (10) with atleast one orifice (14) for injecting an unclogging fluid, is mounted within the said erect tubular end part (9, 24) on one end of said injection tube (10) being provided with means for connecting the same to a source of unclogging fluid.





Compl. Specn. 17 Pages. Drgs. 2 Sheets.

Ind. Cl. : 39-E—[GROUP-III]. 168647
Int. Cl.[4] : C 09 K 21/12.

COMPOSITION FOR IMPARTING FIRE-RESISANCE TO LAMINATING INTERLAYER SHEET.

Applicant : MONSANTO COMPANY, OF 800 NORTH LINDBERGH BOULEVARD, ST. LOUIS, MISSOURI 63167, UNITED STATES OF AMERICA, A DELAWARE CORPORATION.

Inventor : ILDEFONSO LUIS GOMEZ.

Application No. 1000/Mas/86, filed on 22nd December 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

5 Claims

A composition for imparting fire resistance to laminating interlayer sheets comprising :

(a) 80 to 90 weight % of a plasticizer blend having a char-forming component and an oxygen sequestering agent, in a ratio between 7 :1 and 13 :1, wherein the char-forming component is an organic phosphat and the oxygen sequestering agent is an organic phosphite, as herein described;

(b) 2 to 8 weight % of fumed silica as nucleating agent for dispersing fire decomposition products of the interlayer;

(c) 2 to 2.6 weight % of a heat reactive bonding resin such as herein described;

(d) optionally upto 10 weight % of known additives such as flame retardant additives, dyes, stabilizers and adhesion control-salts.

Compl. Specn. 17 Pages. Drg. Nil.

Ind. Cl.: 32E [GROUP IX (1)]. 168648
Int. Cl.[4]: C 08 G 63/46.

AN IMPROVED PROCESS FOR THE CONTINUOUS PRODUCTION OF HIGH MOLECULAR WEIGHT POLYESTER RESIN.

Applicant: COBARR S.p.A. VIA ANTICOLANA KM. 1—03012 ANAGNI (FROSINONE), ITALY, AN ITALIAN COMPANY.

Inventor: HUSSAIN ALI-KASHIF AL GHATTA.

Application No. 893/Mas/86, filed on 18th November, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

10 Claims

An improved process for the continuous production of high molecular weight polyester resin from a polyester resin granulate having a lower molecular weight comprising crystallizing the said granulate in an inert atmosphere with stirring at a temperature of from 170 to 220°C followed by polycondensing in the solid state in an inert atmosphere at a temperature of from 180°C to 245°C wherein the improvement consists of

(a) recycling the inert gas flow continuously or in countercurrent to the polycondensation and crystallization stages;

(b) oxidising by known means the inert gas flow leaving the crystallisation stage containing the volatile organic compounds produced in the crystallisation and polycondensation stages;

(c) recycling a portion of the said oxidised gas directly into the crystallization stage;

(d) purifying by known manner the remaining portion of the oxidised gas and recycling the said purified gas having an oxygen content below 2 ppm to the polycondensation stage.

Compl. Specn. 13 Pages. Drgs. 2 Sheets.

Ind. Cl.: 83 A₃ [GROUP XIV(5)]. 168649
Int. Cl.[4]: A 22 C 11/00; A 23 L 1/00

AN IMPROVED PROCESS AND APPARATUS FOR PRODUCING SAUSAGES.

Applicant: ALBERT HANDTMANN MASCHINENFABRIK GmbH & CO., KG., BIRKENALLEE 25-29, D-7950 BIBERACH A.D. RIB, FEDERAL REPBLIC OF GERMANY, A COMPANY UNDER THE LAWS OF WEST GERMANY.

Inventors: (1) GEORG STAUDENRAUSCH, (2) THOMAS HANDTMANN, (3) MANFRED KERN, (4) JURGEN SCHRAIVOGEL, (5) GEORG ZINSER (6) GRANZ ABT, (7) SIEGFRIED REUTTER (8) EINAR FESSELER.

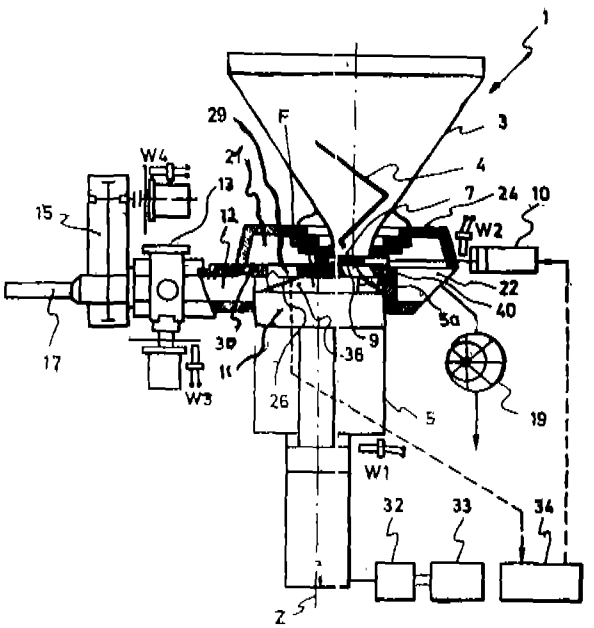
Application No. 912/Mas/86, filed on 27th November, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

17 Claims

An imprived process for producing sausages by transferring the mass of sausage meat in a stream from a supply space into a filling cylinder, applying a vacuum to remove air from the mass of meat ejecting the transferred mass from the said filling cylinder by moving a piston in it, the improvement comprising drawing the mass into the top of the filling cylinder from the supply space by continuously increasing the volume of the filling cylinder by moving the piston away from the supply space generating vacuum inside the cylinder, deflecting the mass of meat as it first enters the top of the filling cylinder towards a wall of the cylinder and at an angle to the direction of movement of the piston, and maintaining an essentially constant height of mass of meat in the cylinder during filling.

Apparatus for producing sausages by the process as claimed in claim 1 comprising a filling funnel (3) for holding a supply of the mass of meat at least one filling cylinder (5) having a piston (11) disposed therein connected to the said filling funnel (3) via an inlet orifice (7) in the top of the said filling cylinder (5), means for reciprocating the piston (11) toward and away from the filling funnel (3), the said reciprocating movement of the piston away from the filling funnel (3) generating a vacuum in the filling cylinder (5) drawing mass of meat from the filling funnel (3) into the filling cylinder (5) in the direction of motion of the piston (11), an inlet slide (9) for regulating the opening of the inlet orifice (7) and an outlet orifice (12) in the filling cylinder (5) through which mass of meat in the filling cylinder (5) is capable of ejecting by shifting the piston (11) toward the filling funnel (3), said inlet orifice (7) being located and shaped for deflecting the mass of meat passing through it from the filling funnel (3) to the filling cylinder (5) toward and against a wall (5a) of the filling cylinder (5) at an angle to the direction of movement of the piston, vacuum means (19) in the filling cylinder (5) to remove air from the mass of meat means for sensing (26), the level of the mass of meat in the filling cylinder (5) during the filling to maintain an essentially constant volume of free space above the level of the mass of meat in the filling cylinder (5).



Compl. Specn. 33 Pages. Drgs. 4 Sheets.

Ind. Cl. : 176 C [GROUP XLV (4)]. 168650
Int. Cl.[4] : F 22 D 1/50.

DEVICE FOR DEGASSING THE STEAM-CONDENSATE USED AS FEED WATER IN A THERMAL POWER PLANT.

Applicant : BBC BROWN BOVERI LTD., OF CH-5401, BADAN, SWITZERLAND, A SWISS COMPANY.

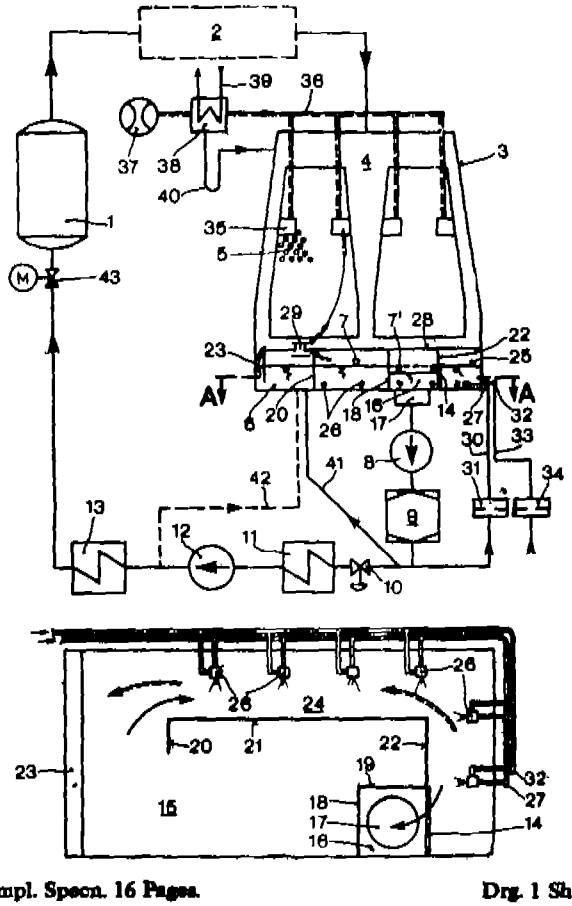
Inventor : FRANCISCO BLANGETT.

Application No. 724/Mas/86, filed on 9th September, 1986.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Madras.

5 Claims

A device for degassing the steam-condensate used as feed water in a thermal power plant whose main cycle consists essentially of steam generator (1), turbine (2), condenser (3), low pressure and high pressure preheaters (11, 13) and circulating pumps (8, 12), steam spraying means (26) being located underneath the water level (7) in the collecting vessel (6) of the condenser (3), wherein a flow channel (24) for flowing the condensate to the circulating pump (8) is formed by means of walls (20, 21, 22) which extend over the complete height of the collecting vessel (6); a plurality of spaced steam spraying means (26) are disposed in the flow direction of the condensate and are located in the flow channel (24), and a peripherally closed flushing steam chamber (25) is provided above the water level (7) in the flow channel (24), the said flushing steam chamber communicates via a steam balancing opening (29) with the condensation space (4) of the condenser (3), the steam balance opening (29) being located in the inlet flow region of the flow channel (24).



Compl. Specn. 16 Pages. Drg. 1 Sheet.

REGISTRATION OF DESIGNS

The following design have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Designs Act, 1911.

The date shown in the each entries is the date of the registration in the entry :

Class 1. No. 162555. Warner-Lambert Company of 201, Tabor Road, Morris Plains, New Jersey 07950, U.S.A. "Razor Handle". October 9, 1990.

Class 1. No. 162559. S. A. Ancienne Fabrique Georges Piaget Et Cie of CH-2117 La Cote-Aux-Fees, Switzerland. "Wristwatch". October 9, 1990.

Class 1. No. 162585. Earl Bihari Private Limited of 148-B, St-Cyril's Road, Bandra, Bombay-400050, Maharashtra, India. "Stand for Mixer". October 22, 1990.

Class 3. No. 162482. Aktiebolaget Electrolux of Luxbacken 1, S-105 45, Stockholm, Sweden, a Swedish Company. "Cassette for a fluorescent tube lamp". September 7, 1990.

Class 3. No. 162551. Gold Star Industries, Indian Partnership Concern of G-1/17, G. T. Karnal Road, Industrial Area, Delhi-110033. "Washing Machine". October 8, 1990.

Class 3. No. 162660. Schoeller Plast SA of 11, route de la Condemine, CH-1680 Romont, Switzerland. "Bottle Crate". October 9, 1990.

Class 3. Nos. 162568 to 162570. Mckaster Pvt. Ltd., 908 Ansal Bhawan, 16, Kasturba Gandhi Marg, New Delhi-110001, India, Indian Company. "Screw Driver". October 10, 1990.

Class 3. Nos. 162606 & 162607. Shilpa Plast (India) Private Limited of 340, Belgium Tower, Silver Plaza Complex, Ring Road, Surat-395002, Gujarat, India, Indian Company. "Toothbrushes". October 30, 1990.

Class 3. No. 162702. Mrs. Raksha Rani Saini, Proprietor of Saini Hair Centre, 17, Kaniska Shopping Plaza, Kaniska Hotel, Ashoka Road, New Delhi-110001, India, Indian. "Bottle". December 3, 1990.

Class 3. No. 162799. Plastella of 91-Swami Vivekanand Road, Borivli (West), Bombay-400092, Maharashtra, India, Indian Partnership Firm. "Comb". December 31, 1990.

Class 3. Nos. 162678 & 162679. Saroj Jalan of 134-C, Raja Rajendralal Mitra Road, Calcutta-700085, West Bengal, India, Indian National. "Ball Point Pen". November 20, 1990.

Class 3. No. 162810. Eagle Flask Industries Limited of "Eagle Estate", Talegaon-410507, Dist. Pune, Maharashtra, India. Indian Company. "Tape". January 3, 1991.

Class 3. No. 162843. Sajavat, a proprietary concern of 210, Golf Linker, New Delhi-110003, India. "Decorative Article in the form of fountain-cum-planter". January 16, 1991.

Class 4. Nos. 162671 & 162672. Melmoking, 13/24, East Patel Nagar, New Delhi-110008, India, Indian Partnership Concern. "Dinner Plate". November 15, 1990.

Class 10. No. 162648. Varad Laxman Ullal of 13, Onlooker Building, Sir P. M. Road, Bombay-400001, Maharashtra, India, Indian National. "Shoes". November 8, 1990.

Class 11. No. 162543. Cotex Hosiery Factory of C-6, Acme Estate, 2nd floor, Sewree (E), Bombay-400015, Maharashtra, India, Indian Partnership Firm. "Under Wear". October 4, 1990.

Class 11. Nos. 162544 & 162545. Cotex Hosiery Factory of C-6, Acme Estate, 2nd floor, Sewree (E), Bombay-400015, Maharashtra, India, Indian Partnership Firm. "Under Wear Belt". October 4, 1990.

Class 12. Nos. 162723 & 162725. Riche Rich Products, A-18, Ram House, Middle Circle, Connaught Place, New Delhi-110001, India, Indian Sole Proprietorship Concern. "Toy". December 5, 1990.

Copyright extended for the 2nd period of five years

Nos. 157251 to 157255, 156857, 156858, 160444 to 160450, 157345. ..... Class 3.

No. 157346. ..... Class 4.

Copyright extended for the 3rd period of five years

Nos. 160444 to 160450. ..... Class 3.

R. A. ACHARYA
CONTROLLER GENERAL OF PATENTS,
DESIGNS AND TRADE MARKS.

MGIPF—G—57 GI/91—350.

PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, FARIDABAD
AND PUBLISHED BY THE CONTROLLER OF PUBLICATIONS, DELHI, 1991